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Number 20

GOOD TIMBER WILL ADD BIG SUM TO WEALTH OF STATE

Commercially Valuable Trees Should B Substituted for Undesirable Growth-Lumber, Sirup, and Nuts Are Practicable Kansas Products

The care of the farm wood lot, say agricultural college experts, should deeply interest every farmer within the state. Throughout the native timber land of eastern Kansas, however, cies, which may be used for under-

TAKE CARE OF WOOD LOT derplanting the remainder with such trees as the red cedar, for the production of posts and poles, or with Austrian pines for the production of lumber. The Austrian pine is a tree of comparatively rapid growth and will, when from 30 to 40 years of age, yield per acre from 8,000 to 12,000 board feet of lumber excellent for all building purposes.

THESE GROW MORE SLOWLY

The white oak, the bur oak, and the black walnut are other valuable spepractically 60 per cent of the ground planting cut over and partly cleared is occupied by the white elm, a tree of wood lots. The acorns and walnuts little commercial value, to the exclu- of these species should be planted in sion of the more valuable species the open spaces in the wood lot in the which formerly grew in greater abun- fall months. They will germinate the



A WELL PLANTED WOOD LOT. THE TREES ARE 12 YEAR OLD PINES

imately three-quarters of a million acres of natural woodland. And investigation shows that farmers usually class their timber land as waste will yield per acre from 8,000 to 12,000 of bachelor of science from the Uniland. Under this system, the yield of board feet of the most valuable lumsalable material is not sufficient to ber that can be grown anywhere in the pay interest on the investment and United States. During this period of taxes on the land. This timber is growth, many of the trees will fail on growing on some of the richest land account of being crowded out by the in the state. This land is capable of stronger growing individuals, and producing a maximum yield of valu- these will make posts, poles, and fuel. able timber that will return a profit on The trees are comparatively free from city schools. For three years he was the investment above all cost of production.

The timber land is in the form of farm wood lots, and the problem in handling the wood lot is to out the southeastern part of the state, agriculture in the surrounding counclear the ground of unprofitable trees, and promises to be of great value for try. He rented and ran successfully and stock it with desirable species.

and put under cultivation, the hardy catalpa is a profitable tree for planting on the low rich bottom land that is occasionally subject to flooding. On such land it makes a remarkably rapid growth and at 12 to 16 years of ed States. age, will yield from 3,000 to 3,500 posts to the acre.

COTTONWOOD HAS MANY USES

growth than the catalpa on the same kind of land. When from 24 to 30 in the open spaces in the wood lot, or years old, it will give from 15,000 to 20,000 board feet of lumber per acre. The cottonwood lumber is altogether satisfactory for farm building purposes, and in many respects is superior to the pine. The lumber is light but tough, and strong enough to give excellent service for farm buildings. It is also used extensively for crating purposes. It is one of the most de- height of 75 feet or more on a favorstaves. Vegetable and fruit dealers consider the cottonwood one of the best package materials that they can of nuts in a single season. Twenty cultural journals of the country as an recognizes the cottonwood stave barrel as the best barrel on the market for flour containers.

the ground entirely of its present | The sugar maple is another species growth, it is altogether possible that of value for wood lot plant throughthe stand may be improved by cutting out the eastern part of the state, esout the least desirable trees and un-

dance. In this state there are approx- following spring and will in a few years completely occupy the ground.

These trees will develop tall, clear stems and at the age of 60 to 90 years mal school at Peru, Nebr., and that fungous or insect injury and in every professor of agriculture in the normal under Kansas climatic conditions.

The pecan grows naturally through-Where the ground can be cleared species is not of great commercial value, but makes excellent fuel.

The greatest value of the tree lies in nut production. The increased demand has rapidly developed a nut growing industry throughout the Unit-

PECANS IN EASTERN KANSAS

Wood lots throughout eastern Kansas offer an excellent opportunity for The cottonwood makes a more rapid the profitable growing of pecans. The trees may be started from nuts planted budded trees from five to seven feet in height may be planted promiscuously in the open spaces throughout the wood lot. These trees will come into bearing in from five to eight years, and from that time on should yield a considerable quantity of nuts, the volume increasing in proportion to the size of the tree. The pecan attains a sirable trees for slack cooperage able site, with a diameter from three to four feet at the base. Trees of this size frequently yield from 600 to 800 pounds has been treated by the leading agrisecure. The flour milling industry trees to the acre is considered a full example of modern farm coöperation. stand. The pecan is particularly well He is a charter member and director adapted for planting on overflow lands of the South Carolina Plant Breeders' in a heavy, rich soil, such as is usu-Where it is not practical to clear ally found along water courses.

(Concluded on Page Three)

STRONG AGRICULTURAL ORGANIZER TO HEAD BRANCH STATION

New Superintendent Has Had Wide Experience as Educator, Extension Lecturer, and Farm Manager-A Native of Nebraska

Charles R. Weeks of Rock Hill, S. C., an experienced farmer, rural teacher, city superintendent of schools, college professor, and crop and stock judge, will become superintendent of the Fort Hays Branch Experiment station March 15. He has just been elected by the board of administration to succeed George K. Helder, who recently resigned after many years of successful work at the station.

Mr. Weeks is now professor of agriculture and extension and college farm inspector in the Winthrop Normal and Industrial college, one of the best known institutions of its kind in the south. While Professor Weeks has been highly successful among the rather conservative people of South Carolina, he was brought up in the middle west and is thoroughly acquainted with the problems of the great plains region. He is commended by well known educators and farmers as a man of exceptional ability, practical knowledge, and common sense. He is attractive in personality and has marked qualifications as an executive.

REARED ON STOCK FARM

Mr. Weeks was brought up on a stock farm near Fairbury, Nebr., and attended rural schools, afterwards graduating from the Fairbury high school. He took the degree of bachelor of education from the State Norversity of Nebraska. He pursued graduate work in the Iowa State college at Ames.

He taught for four years in rural schools and for two years in high school, following this with the superintendency of the Fairmont (Nebr.) particular well adapted to growing school of which he is a graduate. He is remembered there as having accomplished much for the betterment of wood lot planting. The wood of this an experimental farm at his own exense. For three and one-half years he has been in the Winthrop college.

At Rock Hill Mr. Weeks has been a workers and has had general direction of farm operations, including the poultry plant, experimental and demgarden departments. Two crops a year are raised on the farm and the college dining hall is supplied from it. Each year 500 student garden plots are maintained. Last summer Mr. Weeks transformed the college dairy into a cooperative creamery as a project to encourage the farmers in the surrounding country to keep some

ORGANIZED ROCK HILL ENTERPRISE

The new Hays superintendent has been instrumental in organizing agricultural projects that have attracted national attention. He was the organizer and secretary of the Rock Hill Alfalfa Growers' association, which Carolina Federation of Fairs.

As director of the School Garden Association of America, he is coöperhome and school garden work. He is Michigan institution.

CHARLES WEEKS TO HAYS active in national and southern edu- GROW TREES IN WEST cational organizations, being particularly interested in rural school problems, and is in demand as a lecturer on agricultural subjects and a judge of field crops and live stock.

Among the many educators who speak in commendation of Professor Weeks is E. C. Bishop, formerly state superintendent of public instruction in Nebraska and now state leader of junior work and agent of the United States department of agriculture in Iowa. "Mr. Weeks," says Professor Bishop, "is tactful, vigorous, and ambitious to get things done the best way. He has shown himself a good manager wherever I have known him. He has enough of life to work with Kansas people, and enough of good judgment and balance to work with the more conservative people of South Carolina. He is pleasing in appearance and personality."

STUDENTS GET OUT NOON EDITION OF DAILY PAPER

Practical Experience Tests Prospective Journalists in Topeka-Publishing and Printing Plants Visited

To get out the noon edition of a city daily was the experience of 25 industrial journalism students who went to Topeka Monday to see the publishing and printing plants. The students got their experience in writing copy and making up, through the courtesy of Arthur J. Carruth, Jr., city editor of the Topeka State Journal.

Charles Dillon, formerly professor of industrial journalism in the college and now managing editor of the Capper farm publications, entertained the party at a most attractive luncheon and afterward showed the students through the plant.

Another former college man, J. D. Rickman, assistant state printer, greeted the students at the state printing plant. Other places visited were the establishments of the Kansas Farmer, Crane & Company, and the Hall Lithographing company. The students were accompanied by N. A. Crawford, head of the journalism and printing departments, F. L. Snow, instructor in industrial journalism, and Mrs. Snow.

FORESTRY DEPARTMENT NOW

The work of the department of forestry of the Kansas State Agricultural general adviser to other extension college covers five fields. These comprise tree planting throughout the state, and particularly in the western part, where few trees grow naturally onstration plants, feed lots, dairy and and where the trees for shelter to the farm homes and to live stock are greatly needed; the improvement of the farm wood lots and natural timber in the eastern part of the state; the introduction of foreign species of trees that are likely to prove hardier than the native species, and the determination of their value; the state forest nursery, which grows forest trees suitable for planting throughout the state, giving special consideration to trees suitable for western Kansas; plans for commercial wood lots and ornamental plantings.

GEARHART TELLS MICHIGAN MEN HOW TO KEEP UP ROADS

State Engineer Makes Address at Highway **Engineering Short Course**

W. S. Gearhart, state engineer, has returned from Ann Arbor, Mich., where he addressed the highway engiassociation and president of the South neering short course of the University of Michigan. His subject was "The Maintenance of Earth Roads." Mr. Gearhart reports an interesting and yards, is an item that cannot be estiating with the federal government in successful course in progress at the mated in dollars and cents. A few

GREAT PLAINS AREA WILL RESPOND TO RIGHT METHODS

Drouth-Resistant Species Should Be Planted in That Part of Kansas, and Thorough Cultivation Should Be Practiced

Western Kansas needs trees as greatly as any section of the United States, and trees can be grown successfully there when the right species are planted and the proper care is given. Trees, like animals, vary in their requirements as to soil and climatic conditions. For planting throughout western Kansas, only drouth-resistant species that are adapt-



C. A. SCOTT, STATE FORESTER

ed to arid conditions should be chosen, and these must be given proper care.

The forestry department of the Kansas State Agricultural college, encouraging the planting of such trees, insists, nevertheless, that it is a waste of time to plant trees in the western half of the state unless the ground is under a thorough state of cultivation beforehand. Moreover, the trees must receive thorough cultivation until they reach such size that they will shade the ground and thus protect themselves. Cultivation previous to plant-IS AT WORK IN FIVE FIELDS ing is necessary in order to conserve the moisture necessary for tree growth. Is of Special Benefit to People in Western | There is no soil so poor that it will not support tree growth of some nature, if moisture is available to main-

SHELTER BELT PROTECTS FARM

A shelter belt is a belt of trees planted in such a location as to protect a field or farm buildings and yards from the sweep of the wind. In western Kansas the objectionable winds are from the south and the southwest during the summer months, and from the north and the northwest during the winter. The shelter belt will therefore be located on the south, west, and north sides of the objects to be protected.

The value of a shelter belt to a cultivated field, experts point out, is that to a large degree it protects the soil from blowing and allows the snow to settle and lie evenly over the surface of the field. Often the snows thus held by some obstruction to the wind, determine the success or failure of the crop the following season. The protection afforded by a shelter belt to growing crops is in critical times of immense value. Protection during two or three days of hot winds is frequently sufficient to save a crop.

The value of protection from the winds to the farm home, barns, and

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Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, FEBRUARY 26, 1916

Memphis, Tenn., had four mayors in a single day this week. Most cities find one bad enough.

The steady growth reported by Professor Reed in the dairy industry of Kansas is one of the most encouraging features of Kansas agriculture.

Jess Willard is in religious difficulty now. After postponing his fight from Ash Wednesday because of protests from his friends, he set it for Annunciation day and is now due for another call-down.

WHY TREES?

There is probably nothing which costs as little but enhances the value of property as much, as do trees. Even the casual traveler, passing through a town on a railway train, notices beyond anything else the presence or absence of trees. "A homelike place," or "A barren looking hole," is his comment.

The impression is stronger if a man is looking for a home. If it is in town, he wants trees on the streets, on the parking in front of the house, and in the yard. On the farm, he likes a house surrounded by a pleasant lawn planted with trees and shrubbery. He is willing to pay for them. Instances are not uncommon where the value of good sized farms has been doubled by surrounding the house with an attractive garden, lawn, and trees.

however, is family comfort. In an for windbreaks. For hedges, the agricultural country trees are necessary for family comfort. Only nomad- in single rows, and should be kept ic races that depend largely on trading, live on unforested plains. There and a half or four feet. For windshould be trees on every home place in breaks they should be planted from Kansas.

THE ARRIVAL OF THE "LOWBROW"

And now it's the "lowbrow" who is threatening to ruin our colleges, according to Chancellor David Starr Jordon of Stanford university. Once it was the snob, then the too democratic, then the "highbrow" but now it's the "lowbrow."

A "lowbrow," Doctor Jordan explained, is only a step removed from a "roughneck." The "lowbrow" is too practical, just as the "highbrow" was not practical enough.

"There are too many 'lowbrows' in college," said Doctor Jordan. And yet some people say colleges are not practical.

GARDENS

Clustered about gardens, and lurkwhere the memory sees them dimly, are some of the most precious, most

Gethsemane, the gravely beautiful illiterate foreigners. The spirit begardens of the medieval monasteries, the Dutch gardens-"very snug for varmint," as the old gardener unro- and gather the persons for whose benemantically remarked—yes, and La Pe- fit the schools are established. tite Trianon-what vistas of history and art do they not open up?

"There is May in books forever," wrote a nineteenth century poet. Likewise there are gardens in books forever. But they are not in books only. 'Still today," says Richard Le Gallienne, "when a man has found all the rest of the world vanity, he retires into his garden." For in the garden is the peace that has comforted uncounted millions in uncounted years.

DO YOU VOTE?

One often hears a man who is firm in his belief that nation or state or town is being crushed by misgovernment, remark in a tone of conviction, "Well, I didn't vote at the last election and I don't expect to this year. What does my little vote amount to, anyway? I can't help matters any."

This man calls himself a citizen although he refuses to offset the vote of a grafter. He and others like him are making it easier for political machines to operate. He is worse than the man who in ignorance casts a vote which is not to his interest, for there is hope that the latter will learn and vote intelligently.

When a man refuses to do his part, however small it may be, in the government, he has no "come-back" on the way it is run.

THE RUSSIAN WILD OLIVE

Used for centuries as a windbreak and for fuel in Asia, the Russian wild olive has for a number of years been growing successfully throughout western Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and the panhandle of Texas, withstanding the severest drouths and the most extreme cold that have occurred.

The Russian wild olive seldom exceeds fifty feet in height under the most favorable conditions. It reaches its best development in heavy rich soil. It adapts itself, however, to a wide range of soils and will even endure considerable alkali. On high, dry prairie land its rate of growth is much slower than on moist soils. It is a persistent grower, however, and if given a chance, will make a satisfactory growth under the most adverse conditions. Its rate of growth under favorable conditions compares favorably with the soft maple.

The leaves are silvery white, and on this account the tree makes a pleasing variation when planted in mixture with other trees. It is highly prized for yard and park planting, and is altogether suitable for street planting. It More important than money value, can be used to advantage in hedges or trees should be planted 18 inches apart trimmed to a uniform height of three three to six feet apart in rows eight feet apart, and should be permitted to grow without being cut back.

The trees naturally head low and grow rather sprangly. When planted for street or yard trees, the lower limbs should be removed early in their development so that the tree will develop a desirable form for such use.—Prof. C. A. Scott.

MOONLIGHT SCHOOLS

Only five years ago a Kentucky woman school superintendent, Cora Wilson Stewart, launched the idea of "moonlight schools" for the illiterate adults in the mountain regions of her state. In a few weeks she had 1,200 persons, ranging from 18 to 87 years old, enrolled in the new schools in her own county and studying in the reguing in the unsuspected green shades lar schoolhouses on nights when the moon made travel possible over the rough roads. The idea spread quickromantic, most inspiring, recollections ly. Now, in no fewer than 17 states of the human race. Born in a garden, the moonlight schools are fast becomthe race has lived in gardens its hap- ing in the sparsely settled regions piest days of peace and plenty as well what the evening schools are in our as its hours of most piercing tragedy. cities. They are becoming more than The garden of Eden, the wondrous that, in fact, for city evening schools

gardens of Babylon, the garden of are simply in a receptive mood toward chiefly ill health and lack of funds. hind the moonlight school movement is such that those in charge go out

> Indians in Oklahoma, negroes in the black belt, poor whites in the of teaching German by speaking it. southern mountains, Mexicans in the southwest-these classes by the thou-

while a few met their fate at mid-term examination.

Mr. Haupt of Junction City visited the college on Thursday while canvassing the town with reference to forming a class in the natural method

At the last meeting of the Horticultural society, held at the college on sands are profiting from the simple February 12, the following persons

Mother Earth's Christmas

Albert Dickens

Arbor day is Mother Earth's Christmas. We who have enjoyed of her bounty, eaten her fruits, picked her flowers and rejoiced in the pleasures that follow the change of season, the green of spring, the gold of harvest, the jubilee colors of autumn, bedecked with Jack Frost's jewels, may well remember to present our Great Mother an offering of our appreciation. And as with all mothers' presents the sons and daughters are sure to enjoy the gift as well as the giving.

A movable feast this, but the spirit of giving should precede the date set by the commonwealth's executive. Even the mercenary giver may give gladly, for never was there greater certainty of a gift being appreciated and returned. "Do your shopping early," and make the delivery at an early date. Never mark it "Not to be set until Arbor day." Too many times has Arbor day been celebrated with song and speech and ceremony of presentation, and like the gift of the men who think of their friends only at sight of a Christmas card. "The gift without the giver is bare." Better plant a cottonwood cutting with care than carelessly set the rare tree that costs a coin of gold.

Think of the gift carefully, and select one suitable for the location. A wide spreading elm for the play ground, a neat, compact, close topped evergreen for the place where economy is necessary. The conifers are great economists of soil substance and moisture and they work at their artist's task of making pictures every day in the year. Some people object to evergreens. One old sinner says, "They make me think of the graveyard." For such a redbud, a hawthorn, a wild crab apple, or a mountain ash may be suitable.

The early prairie settler demanded but one thing of a tree-quick growth-and the law of compensation holds with trees as with all else. We must choose between desirable characters when we choose tree species, and the early settler was right. He needed shade, fuel, and windbreak, and the quick growing species were the ones that offered these. Before these pioneer trees finish their work, others should be planted and the oak, the elm, the pecan, the walnut, the ash, the sycamore, the tulip tree, and others of special desirability may be selected according to the requirements and limitations of the location they are to occupy.

The spirit of the tree lover must follow the trees; it must provide necessary protection from insect and animal injury and from a sun that may be cruelly hot for bark previously sheltered in nursery row or thicket.

The love of a beautiful tree must be strong enough to decide which must be cut down in their youth or sturdy middle age, that the remaining ones may have an opportunity to develop a beautiful symmetrical form. There are many trees which were planted by loving hands and with the fondest hopes but which are now crowded. Some must be cut out in order that all are not deformed.

Some plan for the care of the young trees set must be rovided. In the ideal community that we hope the future will produce it is not too much to hope that the janitor who cares for the winter fires in school house and other public buildings may know how to prune and care for shade trees. Nor is it beyond hope that the police officials of the future may occasionally condescend to notice the needs of street and park trees and secure exercise by pruning and cultivating trees for which the community should be responsible. The sight of a small town constable grubbing a tree would sure rejoice all mankind and Mother Earth.

rural problem. Boston Herald.

A QUARTER CENTURY AGO

Items from The Industrialist of February 28, 1891 The annual exhibition of the Webster society will be given on March

The Associated Press announces the appointment of the Hon. John A. Anderson, formerly president of this col-

lege, as consul general at Cairo. Assistant Cottrell's paper before the State Dairy association in January, entitled "Fodder Crops," gains a place in the Kansas Farmer of last week.

college this week for various reasons, sling for some time.

idea that rural America waited for were elected members: Col. J. B. Anthe Kentucky woman to think of. Illit- derson, the Rev. William Campbell, eracy in the United States is largely a Lieutenant Bolton, Professor Goodnow, Mrs. J. A. Marlatt, Miss Mary Marlatt, Mrs. William Baxter, Mrs. W. J. Griffing, Mrs. J. C. Van Ever-

> While two students were driving the new Berkshire boar, a huge two-year old weighing 600 pounds, from one pen to another, the hog turned upon them, and in spite of defence with hammer, shovel, and pitchförk, succeeded in throwing Mr. E. A. Clark, a six-footer of more than 200 pounds weight, and tearing his arm with its tusks. The wound was dressed by Doctor Lyman, and Mr. Clark was at classes

THE NEW EDEN Oliver Wendell Holmes

When man provoked his mortal doom, And Eden trembled as he fell,

When blossoms sighed their last perfume,

And branches waved their long farewell,

One sucker crept beneath the gate, One seed was wafted o'er the wall, One bough sustained his trembling

These left the garden,-these were

And far o'er many a distant zone

weight-

The wrecks of Eden still are flung: The fruits that Paradise hath known Are still in earthly gardens hung.

SUNFLOWERS

A bit of pretension is hard to cure.

A good slogan for pacifists: Might makes fight all right.

A good slogan for militarists: There will never be another great world peace.

The introduction of horse meat in the New York cafés will probably have very little effect on the consumption of "ponies" in that staid old

If William Shakespeare could come back awhile from his three hundred years' sleep, he would certainly be interested in the progress that the race has not made since his departure.

An efficiency expert and a rampant individualist met the other day and shelled each other for four hours. Several indolent bystanders were edified, but otherwise no damage was done.

NOTHING TO DO ABOUT IT

You may as well resign yourself. Highly polished platitudes will prevail for some time. The presidential campaign and the mess we are in about preparedness will stimulate their activity at least until late in the fall,

What can we do about it? Nothing at all-absolutely nothing. The only corrective is common sense, and there is not enough common sense to go round.

CARING FOR BIRDS

The reports from Trinity house, London, telling of the success of the bird rests and perches, erected outside lighthouses, will be welcome news to bird lovers the world over. For many years the number of migrating birds that were destroyed at various lighthouses around the coast, has been a matter of great concern. The Royal Society for the Protection of Birds undertook, therefore, some time ago, to erect perches on which birds, momentarily confused by the brilliant light, could rest, and the Trinity house report makes it clear that the scheme is likely to prove completely successful in solving the problem. One lighthouse keeper writes that there is not the slightest doubt that the devices are of very great value in saving the birds, and that it is now a very rare occurrence to pick up any birds that have fallen into the sea.-Christian Science Monitor.

KEEPING STREAMS OPEN

The Kansas State Engineering society took up the matter of flood prevention at considerable length in its recent annual meeting at Manhattan, and the members agreed to work together in an attempt to alleviate the costly floods of the past few years. One of the chief things to be accomplished is the education of those living along small streams to keep those streams open to their full capacity. There is a tendency on the part of those who have a small stream across their farms to use it as a "catch-all" for brush, garbage, and trash of all sorts, and to let it grow up full of weeds, willows, or larger trees. When every farmer is working to keep the waterway in which he is directly interested free from obstruction and ready to carry its full capacity of water in flood next day; but he suffers considerable times we will have very much less Several students dropped out of pain, and must carry the arm in a damage with high water.-Wichita Eagle.

V. V. Detwiler, '13, of the Capper Farm publications, visited the college recently.

H. G. Chittenden, '15, of Hays visited at the Acacia house during the week end.

Harlan D. Smith, '11, has accepted an editorial position with the United States department of agriculture.

Miss Ethel Cary, '15, is enjoying her work as teacher of home economics in the Presbyterian mission school in Ferron, Utah.

J. T. Wilson, '10, attended the Mc-Killip Veterinary college in Chicago last semester but will attend the Kansas State Agricultural college the rest of this year.

E. Q. Perry, '15, is teaching agriculture in the high school at Alliance, Nebr. He is also coaching the girls basketball team, which has won nearly all its games.

R. J. Brock, '91, formerly a Manhattan lawyer, is ill at his home in Portland, Ore. Mr. and Mrs. Brock expect to go to Honolulu soon on account of his health.

Miss Lura Houghton, '13, has resigned her position as dietitian in the Good Samaritan hospital in Portland, Ore., and will probably accompany her sister, Mrs. R. J. Brock, to Honolulu.

M. E. Hartzler, '14, spent Saturday and Sunday visiting his sister, Miss Nancy Hartzler, who is attending college. He is working for the interstate commerce commission, with headquarters at Kansas City.

Mrs. Helen (Huse) Collins, '08, a former instructor in the domestic science department in the college, has charge of dietetics and food production in the nousehold arts department of Baker university.

M. F. Whittaker, '13, since his graduation has been director of manual training in the South Carolina Agricultural college at Orangeburg. His work has been successful, according to reports received here.

MOSER IS WINNER IN ORATORICAL CONTEST

Athenian Society Representative Take First Place—Is Fourth Victory for Journalism Students

With a speech urging attention to dangers from immigration, Leo C. diameter, they will begin yielding a Moser of Courtland, representing the good flow of sap, and from that time Athenian Literary society, won the on an annual yield may be expected. annual college oratorical contest. There is always a strong demand for Miss Stella Blain of Minneapolis, representing the Ionian society, and price. L. A. Zimmerman of Belle Plain, the speaker for the Franklins, won second and third places respectively.

Mr. Moser is a junior in the course in industrial journalism, and is sport editor of the Kansas State Collegian. He is one of the best writers in college, and is a public speaker of marked ability.

Mr. Moser is the fourth journalism student to win first place in the annual oratorical contest in the six years that the journalism department has been in existence. The other journalism students who took first place were Roy I. Davis, Miss Lucile Berry, now Mrs. Max Wolf, and W. D. Hutchinson.

GROW TREES IN WEST

(Concluded from Page One)

rows of trees properly located change the environment of a farm home from a dreary prairie to a place of beauty and comfort.

REDUCE WIND VELOCITY

Extensive studies have shown that the shelter belts materially reduced the velocity of the wind for several rods to the leeward. With the reduction of the velocity of the wind, there is a corresponding decrease in evaporation of soil moisture from the plowed ground and in transpiration from the growing plants.

The protection that a clump of trees desirable.

stock in a severe blizzard, will often more than offset the entire cost of growing the trees.

The distance for which protection is afforded to the leeward of a shelter belt should vary with the slope of the ground and with the exposure of the location. Under general conditions, however, perceptible protection is afforded to the leeward for a distance equal to 10 or 15 times the height of the trees. Under such conditions a shelter belt 20 feet in height will afford some protection for a distance of 200 or 300 feet.

USE PLENTY OF TREES

To be effective a shelter belt must be composed of enough trees to provide an effective barrier to the winds. A single row of broadleaf trees planted closely in the row, affords a considerable check to the wind during the summer, but offers little resistance when the trees are naked. If composed exclusively of broadleaf species, a shelter belt should consist of from six to 10 rows of trees. The rows should not be more than eight feet apart and the trees not more than six feet apart in the rows.

The best trees for shelter belt planting are the evergreens. They retain their leaves throughout the winter and offer as great a barrier to winter as to summer winds. Also, they limb from the ground up and there is no opportunity for the wind to sween along the ground under them. Two rows of red cedars or of cedars and pines in mixture will provide greater protection than 10 rows of broadleaf trees. For shelter belt planting, the evergreens should be planted in rows 12 feet apart and eight feet apart in the rows. The trees in one row should come directly opposite the spaces be tween the trees of the adjacent row.

TAKE CARE OF WOOD LOT

(Concluded from Page One)

pecially on rough, hilly land where the trees can be planted on north exposures, much of which at the present time is growing nothing but brush and worthless timber. The value of the sugar maple is in its yield of sap. This tree grows naturally along the eastern border of the state, frequently attaining a height of 65 to 70 feet and ranging from two and a half to three feet in diameter. This tree reproduces readily from seed. One and two year old seedlings should be planted in the open spaces, which can be made by cutting out clumps of brush on the character of land mentioned. By the time the trees are eight or 10 inches in maple sirup and sugar at a good

FOREST TREES FROM FOREIGN COUNTRIES TRIED IN KANSAS

Demonstration Plantations of Species that Promise to Be Valuable

Though the introduction of foreign species of forest trees is a comparatively new field in this country, through the activities of the bureau of plant introduction many species have already been introduced that are better adapted to the climatic and soil conditions than are native species. Some, such as the Russian wild olive, the Russian mulberry, the Chinese arbor vitae, the African tamarix, and Scotch and Austrian pines, are proving as hardy as the most drouth-resistant native trees. The value of these and many other foreign trees has never been fully determined, as they have never been planted under forest conditions or in such quantities as to bring about their best development.

The department of forestry of the agricultural college is conducting demonstration plantations of many of the foreign species that show indications of being valuable trees for this state. The department is anxious to coöperate with land owners in establishing such demonstration plantations in every county in Kansas, and supplies at cost of production planting stock of species likely to prove

or a shelter belt will provide for live PLAN HOME PLACE NOW

LOOK FORWARD TO SPRING WORK ADVISES PROFESSOR AHEARN

Compares Landscape Scheme to Archi tect's Drawings-Plant Trees, Shrubs, and Flowers According to Definite Method, but Use Originality

Construct a working plan now for the decoration of the home grounds this spring, advises M. F. Ahearn, professor of landscape gardening in the Kansas State Agricultural college. the location of the trees, shrubs, and flowering plants may be secured from any local florist or nurseryman.

For larger areas the advice of a competent gardener is almost essential. A plan perfect in detail should be made and followed. Have the map drawn to scale and indicate each tree and shrub, walks, drive, and building.

For the property owner who does not feel able to employ the services of a professional landscape gardener, however, there are many other helpful assistants. There are books that treat the subject from every angle. Powers of observation, well developed, will the best way to group plants to secure the desired effects of color, form, size, and location. Another important help is the up-to-date nurseryman with his catalogue. Reputable firms now keep a corps of expert workmen, who are able to give full instructions as to the proper species or varieties to plant in different soil and climatic conditions and the subsequent care and cultivation necessary for success. An available source of knowledge is the experiment station, where it is possible to secure literature and advice for the price of a postage stamp.

PLAN FOR CONSTANT BLOOM

"After determining the planting specifications," says Mr. Ahearn, "the next step is to secure the plant materials. The selection will be difficult, as the list of possibilities is long. We find trees and shrubs that are suitable for high, dry locations, some that thrive in low, wet places, many adapted to sunny exposures, and still others that succeed under the shade of trees or larger shrubs.

"The season and duration of bloom are very important and it is well to plan for a succession of bloom throughout spring, summer, and fall. During the winter we must rely largely on the evergreens and those broadleaf trees and shrubs which possess bright colored barks.

"Bordering the banks of nearby streams may be found many valuable plants. These trees or shrubs are usually not so well formed as the nursery it in large numbers, say that there is root system characteristic of the latter. in transplanting the cottonwood.

"Set the trees and shrubs in groups There are two distinct forms of the rather than as single scattered specimens. The size of the grounds will determine largely the size of the various groups. Use originality in developing the different groupings. Foundation plantings are very effective. Arrange low shrubs in the corners of the buildings and the curves in the walks and drives. Tall shrubs where single specimens are used should be planted at some distance from the buildings.

PERENNIALS WILL ADD BEAUTY

"No planting will be complete without the addition of perennials. Along the borders, in the back yard, near the fences, these plants will thrive and lend their beauty to the landscape. Easy of cultivation, supplying great variety of color, resistant to disease and insect attacks, the perennials are an important factor in the embellishment of the home grounds. One has only to picture a garden of peonies, flag lilies, hardy phlox and asters, day lilies, columbines, and hardy ornamental grasses to realize the true worth of our garden perennials.

Professor Ahearn suggests a number of suitable trees and shrubs. Some trees adapted to trying conditions are the elm, the hackberry, the cottonwood, the sycamore, the walnut, the and the catalpa speciosa. Other trees spring.

are the ash, the soft maple, the oak, BEESBELONGINORCHARD the linden, the tulip, the Lombardy poplar, the hop hornbeam, the Kentucky coffee bean, and the catalpa Bungeii.

Blue spruces, Douglas firs, Scotch pines, and silver firs are good evergreens. Better suited to difficult conditions are Chinese arbor vitæ, Austrian pines, red cedars, bull pines, and Sabin's junipers.

Among shrubs are barberry, althea, golden bell, honeysuckle, mock orange, spirea, Japanese bush clover, lilac, and Japanese quince. For more If the estate is small, suggestions as to trying conditions Professor Ahearn recommends flowering almond, dogwood, snowberry, tamarix, Siberian pea, Russian olive, and yellow cur-

CHINESE ARBOR VITAE IS ADVISED FOR SOUTHWEST

Brought to America from Asia, Tree Withstands Drouth, Heat, and Cold-Grows Rapidly

Though less than 20 years has elapsed since the Chinese arbor vitæ was introduced into the United States, it has been planted extensively throughout southwestern Kansas and aid materially in getting ideas as to Oklahoma, and is making a splendid growth.

The trees, says C. A. Scott, state forester, show no indication of injurious effects from drouth, heat, or cold. Chinese arbor vitæ should be used extensively, he believes, for wood lot, windbreak, and ornamental planting throughout the southwestern states.

In early years the tree grows rapidly, the annual average growth varying from 15 to 30 inches, depending on the site. It may be transplanted readily. Nursery men who have handled



AN ORNAMENTAL CHINESE ARBOR VITAE 14 YEARS OLD, THAT HAS GROWN WITHOUT SPECIAL CARE OR TRAINING

erect, developing a strong central to supply nutriment." stem. The other form is a low, bushy tree composed of several stems of height and are prized highly for ornamental planting.

For wood lot or windbreak planting, the tall form should be selected. The trees should be planted closely so as to shade off the lower limbs and develop a straight, clean stem that will yield poles and posts. As a post timber, it is very durable, comparing favorably with the American arbor vitæ, or white cedar.

For windbreaks, three or more parallel rows should be planted eight feet apart and the trees set six feet apart in the row, the trees in one row alternating with those in the adjacent row. In a few years they will form a perfect wall of limbs and foliage from the ground to the height which they at-

For ornamental planting, care should be taken to select suitable specimens, the most desirable being low, compact trees with dense foliage. The foliage of the Chinese arbor vitæ is a deep green through the summer, changing to a dull brown with the approach of winhickory, the honey locust, the wild ter. The deep green is resumed in the black cherry, the redbud, the buckeye, first few days of warm weather in the

INSECTS ARE BIG HELP TO SUCCESS-FUL FRUIT GROWING

Dr. J. H. Merrill Gives Suggestions to Prospective Apiarists-Honey Production on Commercial Basis Is Modern Occupation-College to Teach Subject

ADVICE ON BEES

Bees are indispensable to horticulture.

Bee culture is not only profitable, but an interesting occupation.

A successful bee keeper is well paid for time spent; he gets a quick return on his investment.

Bees may be kept anywhereon the city roof, in the village back yard, or in the garden on the farm.

Bee keeping may be followed by man or woman, by rich or poor, by young or old.

An awakened interest in honey production is in evidence in Kansas.

"The presence or the absence of bees in the orchard often means the difference between success or failure with the crop," says Dr. J. H. Merrill, of the department of entomology in the Kansas State Agricultural college. "Many of the varieties of strawberries absolutely depend upon insects for cross pollination. Among apples some varieties depend wholly on insects for fertilization, and even those that are self fertilized are improved by the transference of pollen from other blossoms. Some fruits in which pollen is normally distributed by the wind could not produce much fruit if the wind did not happen to be favorable at the time of blossoming. When bees are present the direction of the wind is immaterial.

"The old method of leaving the bees in a single-walled hive and allowing them to be exposed to the rigors of winter has been detrimental to these insects. The length of the life of bees depends on the amount of work they do. During the winter if the bees are housed in the manner mentioned, they form a cluster when the temperature falls and try to keep warm by muscular exertion. Consequently many of them die and those which survive are in a weaker condition in the spring. "One of the best methods of winter-

ing bees outdoors is to cover the hive with a packing case and fill the space between the hive and the case with some packing material-cork, hay, or sawdust.

SEE THAT BEES GET FOOD

"When spring comes, care should grown trees, and lack the branching no more loss in transplanting it than be taken to see that the food within the hive is sufficient until the honey flow starts. If there is lack of food, Chinese arbor vitæ. One form grows artificial methods should be employed

> In feeding, care should be taken to protect the food from the robber bees, about equal size. The trees of this warns this authority. There are sevform seldom exceed 16 or 20 feet in eral patented feeders that will prevent this robbing. One bee in March is worth 10 bees in June. In view of this fact too much care cannot be given in the spring. It is at this time that the bees begin to raise the bees which are to carry on the summer's work.

In the summer the honey harvest may last but a few days or a few weeks and the apiarist should be prepared to take full advantage of this honey flow.

In the fall, after the honey flow ceases and the supers are removed, preparation should be made for carrying the bees over winter, points out Doctor Merrill. These should have 25 pounds of honey to each colony to last through the winter. If the bees have not enough food they should be fed until they have laid by sufficient stores for the winter.

DON'T INJURE SOUND FRUIT

Often complaints are made that the bees injure fruit in the fall. Any one who has studied the mouth parts of the bees knows that it would be impossible for them to puncture fruits. Experiments show that while bees do

(Concluded on Page Four)

FOREST NURSERY TREES THRIVE ON GREAT PLAINS

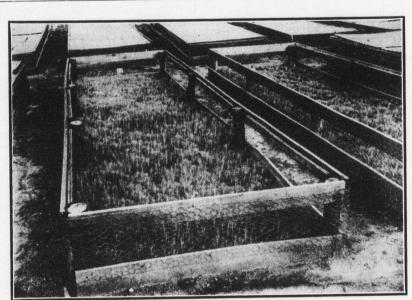
UNFAVORABLE SEASONS DON'T KILL STOCK SENT OUT FROM COL LEGE AND STATION-PROF. CHARLES A. SCOTT TELLS HOW TO HANDLE SEEDLINGS

sent out to Kansans from the state forest nursery at the Fort Hays Branch most of the trees were dead or dying Experiment station in 1914 are still when they were planted. Evergreen growing. Of those planted in 1913 the trees are very sensitive and a few minpercentage thriving is 65, and of the proportions are especially noticeable in view of the fact that the years mentioned were all unfavorable to tree culture.

The trees sent out include catalpa, Chinese arbor vitae, red cedar, Russian wild olive, honey locust, Osage and mulberry. Catalpa and Chinese place until they are planted. If they

Eighty-three per cent of the trees green trees to grow, says Professor Scott, has been due to the fact that utes' exposure of their roots to the air ones planted in 1912, 76. These high is fatal. All danger of such injury is easily prevented if the roots are puddled as soon as the trees are dug in the nursery and again when they are unpacked to be planted.

"The care of the planting stock is of prime importance," comments Mr. Scott. "After the trees are received, orange, white elm, green ash, poplar, they should be kept in a cool, shaded



A BED OF PINE SEEDLINGS IN THE EVERGREEN NURSERY

numbers.

forest nursery at Hays, the depart-Charles A. Scott, state forester, has an evergreen nursery at Manhattan for growing coniferous trees. The work is carried on to meet the demand for trees suitable to western Kansas.

The trees, when of suitable size for planting, are sold to actual planters at cost of production. The prices vary with species, age, grade, and cost of production.

TAKES SKILL TO GROW STOCK

The growing of evergreen stock reframe of boards and wire netting and planting day occurs. covered with a lattice roof. The inseedlings from birds, animals, wind, nurseryman's skill to save his stock. without seriously drying.

At 1 or 2 years of age the seedlings are transplanted to nursery rows, where they are grown for one, two, or three years, until of suitable size to plant out in their permanent location.

are usually sown in the open field in be broken and cropped at least one nursery rows, where the stock grows year before the trees are planted. If without being transplanted until of cropping is not practical, the ground sufficient size for permanent planting. It is usually root-pruned, however, at one or two years of age. The broad- and summer-fallowed one season beleaf seedlings are less liable to plant fore the trees are planted. diseases than the evergreen seedlings, and they grow with much more vigor, attaining heights varying from one to three feet in a single season. At one, two, or three years of age, this stock is of suitable size for wood lot and windbreak planting.

FOLLOW THESE FOR SUCCESS

For success in any planting, the trees must be fresh and vigorous when may fall upon it for at least a year planted, must be properly planted in before the trees are set out. a congenial soil, and must receive both cultivation to conserve the available moisture and protection against injury by live stock and insects.

ers have experienced in getting ever- favorable treatment, are under a seri- it must be by thorough cultivation. eradicated. - Farm Journal.

arbor vitae have been sold in largest are to be planted within a day or two, they will probably keep in perfect con-In addition to maintaining the state dition in the bundle in which they were shipped, if stored in a cool, ment of forestry, under direction of moist place. A cellar is an ideal place. When this is not available, they can be taken to an old straw pile and buried in straw.

CAN BE KEPT FOR WEEK

"If, however, several days are likely to elapse before they are to be planted, it is advisable to unpack them, heel them in, and tramp fresh soil firmly about the roots, after which the tops may be covered with hay or straw for protection against sun and wind. If the trees are properly heeled quires the attention of a skilled and in, they will keep for a week or longer experienced nurseryman. The seed without injury. It is seldom, howmay be sown in fall or spring in a ever, that they need to be kept for well prepared bed inclosed with a this length of time before a favorable

"Actual planting should be done only closure is to protect the seeds and infavorable weather. It is impossible to protect a tree against exposure durand hail, while the lattice roof pro- ing periods of dry, windy weather. A tects the seedlings from the sun, wind, cloudy or damp day is an ideal time rain, and hail. During their first for planting trees. The trees can then season, the seedlings are subject to be handled without endangering their several plant diseases, which test a roots, and the soil can be exposed

"The preparation of the ground for tree planting is, next to the selection of species for planting, the most important step in successful tree growing. Virgin prairie soil is unsuited The seeds of the broadleaf species for tree growth. The ground should should be broken, thoroughly disked, plowed to a depth of eight or 10 inches.

FALLOW GROUND FOR YEAR

"Ground that has been under cultivation for some time should be fallowed for a year before trees are planted on it. For successful results, every tree planter in western Kansas should prepare the ground long enough before planting to secure the benefit of all the rain and snow that able to expect newly planted trees to

plowing and summer fallowing cannot ough. Trees respond to good treatbe practiced. In lieu of deep plowing, ment just as readily as any other deep spading must be substituted. crop, and if success in tree planting The difficulty that many tree plant- Street and yard trees, with the most in a semi-arid region is to be attained,

native vegetation growing around them, uses a large proportion of the soil moisture which is needed by the trees and which they would get if they occupied the ground exclusively. The immediate location for such trees should be spaded up for an area at least six feet in diameter.

"The depth to which the ground should be spaded depends entirely upon the character of the subsoil. It the subsoil is hard jointed clay, it is advisable to loosen the ground to a depth of five or six feet. If the subsoil is loamy, spading to a depth of 18 or 20 inches is sufficient. If a supply of water is available, the ground for such planting need not be spaded up until within a few days of the time the trees are to be set. Immediately after being spaded up, the ground should be thoroughly wet and allowed to remain undisturbed for two or three days before the trees are planted.

WAIT TILL PLANTING TIME

"The method sometimes practiced, of digging the holes some weeks before the trees are to be planted, is a serious mistake. It permits the exposed soil to become as dry as the air can inches from the tree on the southwest possibly make it, and if the subsoil side. contains any clay, it will bake and harden. Practically no amount of moisture will again put the ground into good physical condition.

"The tree holes should not be dug until the trees are to be set. The soil taken out of the hole is then in a good, moist condition to use in filling idly excluded from the area occupied in about the roots, and the soil in the by young trees. Animals browsing hole is in the right condition to re-

unite readily.

"Most successful results are secured from early spring planting. The latter part of March or early April is the proper time to plant either evergreen or broadleaf species. Early planting allows the roots to begin growth by the time the leaves are bursting. Late spring planting is objectionable because the leaves come out before the new roots develop and the newly set tree is liable to suffer greatly or even die from lack of moisture. For the same reason it is unsafe to plant trees in the fall where dry autumn and winter weather prevails. Trees set in the fall do not develop feeding roots until the following spring, and there is great danger of the stems and branches becoming thoroughly dried of their moisture content during the winter months, resulting in the death of the

HOW TO PLANT TREES

"In planting a tree, the hole should be dug fully twice as wide and twice as deep as the roots of the tree require in natural position. In digging the hole so large the soil in which the tree is planted is thoroughly worked over and pulverized. In this loosened condition it is capable of absorbing Bees seek out their own food and and retaining a greater amount of moisture than would otherwise be pos- man is never called upon to provide sible. Loosening and aërating the soil liberates the plant food and induces a vigorous growth. The start that newly planted trees get determines their future success.

"When the tree is set in place-and that should be at about the same depth that it grew in the nursery-the roots should be spread in natural order, and covered with three or four inches of soil, and tramped firmly. The object of firming the soil is to bring the roots and soil into close contact, excluding the air, and providing satisfactory conditions for immediate growth. After this the hole should be filled with loose soil to the level of the surrounding ground. The surface should be left in a loose condition to provide a soil mulch.

"After the trees are planted they demand as careful cultivation as any agricultural crop. This fact has too often been overlooked in the care of newly planted trees. It is unreasoncompete successfully with the native plants of the region. The cultivation "For street and yard planting deep need not be deep, but must be thor-

ous handicap. The grass sod or other The more thorough and effective the EAST LOOKS TO KANSAS cultivation, the greater will be the success."

PROTECT YOUR YOUNG TREES

Newly planted trees, Mr. Scott pointed out, require protection against injury by sun, wind, and animals. Protection against injury by the sun and wind is required by the evergreens more than by the broadleaf species. On account of the evergreens' being in full foliage when they are planted, there is considerable danger that they will suffer from the effect of excessive transpiration. To protect them, a screen of some kind should surround them. When there are only a few trees to protect in this way, small boxes with their tops and bottoms knocked out can be set around the trees. Empty nail kegs will answer the purpose. A screen of burlap tacked to three or four stakes set at equal distances from the tree, may be used.

For extensive planting, as in groves and shelterbelts, shingles or short pieces of light box boards from six to eight inches in width are recommended to be driven into the ground a few

The broadleaf species require no special protection until the rabbits begin girdling them. Their stems should then be wrapped in burlap, grass, cornstalks, or wooden veneer tree protectors, or be painted with crude oil.

Live stock of all kinds must be rigagainst the stems, and trampling the ground around the trees, do severe

injury.

"When danger is threatened by leafeating insects, the trees should be sprayed with an arsenical spray. As a protection against borers, the newly planted trees should be painted with a saturated solution of sal soda, to which have been added enough laundry soap to make a thick paint and carbolic acid at the rate of one pint to 10 gallons of the mixture. This mixture should be applied frequently enough to keep the stems completely coated from the first of May to the first of August in the first and the second season."

BEES BELONG IN ORCHARD

(Concluded from Page Three)

suck fruit juices from injured fruit, they will not damage sound fruit. Furthermore, they will not use these juices if other food can be obtained.

Bees are indispensable for the horticulturist. While the majority of bee keepers keep only a few hives, there are a number of scientific bee keepers whose only source of revenue is derived from apiculture.

whenever this is available in the field, anything extra. In gathering nectar, they not only fertilize the blossoms but gather large quantities of honey for their own use as well as the use of their keeper. As food producers, they stand alone both in quality and econ-

In the spring the entomology department will give a course in bee keeping in charge of Doctor Merrill. It will be open to all students in the department of agriculture and general scithe honey bees will be dealt with in the course. Special attention will be given to practical bee keeping and the methods used by successful apiarists. the progressive farmers. That is Diseases and best methods to be used through their favorite farm papers. for their eradication and control and the relation of bees to horticulture and agriculture will be included also.

country; oh, so easy! Just do not reaches them all and gets the closest." encourage his interest in things about him; that will do it. But to get the country out of the boy is another mat- paper and the qualifications necessary in him. He may leave the farm, pros- He urged a rigid censorship over adbut the germ-genus Ruralis-is rarely | carrying fraudulent advertising would

BIG BUSINESS APPRECIATES STATE. SAYS C. C. YOUNGGREEN

Agricultural Advertising Man Tells of Management of Farm Journals -Why Country Offers Best Sales Prospects

Kansas men are hired and Kansas Women admired because they have the word "stick-to-it-ive-ness" bred in them and big business knows it, according to C. C. Younggreen, advertising manager of the Kansas Farmer, who spoke in assembly Wednesday.

"No state has ever endured the hardships that Kansas has and come out on top," said Mr. Younggreen. "Whatever business career you undertake, remember that the eyes of the country are on this institution and on the young people of the state. The east is interested in Kansas.

"The people of the country sometimes wonder if there isn't a magic wand over Kansas when they realize the prosperity of this state, the greatest per capita wealth, world record agriculture, splendid schools, free colleges, no slums, successful prohibition, not a dollar of state debt, social justice, and numerous other advantages."

"Big business is vitally interested in the Kansas young men who will come into its enterprises and also in the young men who will go into the business of farming, which we know is the first business of the land. There is no business more intricate or any bottom and around the edge of the the tips of the branches, rubbing harder to make a success of than farming. Some one has said that every farm is a factory, and of course runing a factory is a business.

"It is not how much we wish we could do but how much we actually do that counts in this world. These are days of intense business efforts. Men with efficiency in the right direction are in demand. Business is now organized along scientific lines."

EDUCATES FARM MASSES

Farm papers were discussed by Mr. Younggreen in a highly practical and interesting address before the students in industrial journalism. He pointed out that the agricultural press was the educator of the agricultural masses, though farmers of the old school have just begun to appreciate farm journals.

"Ten years ago," said Mr. Younggreen, "the farmer began to develop along right lines. Two forces helped him. The growing cities made a demand for his products. That raised the price. The second factor was improved machinery and scientific methods. It once took three hours to reap a bushel of wheat. Now the self binder does it in 10 minutes. 'When I first went into the harvest fields,' said a farmer recently, 'it took 10 men to cut and bind my grain. Now our hired girl gets on the seat of the self binder and does the whole business.' This also is true of machinery for planting and reaping.

PAPER REACHES THEM ALL

"Year by year the farmer's labors are lightened. He not only works his farm more easily and more economically, but gets a bigger price for his crops. Is it any wonder that, for the first time in history, city boys are studying agriculture. But please remember that this change has come in a single lifetime. This is the imporence who have had general entomolo- tant part for the advertiser. It makes gy. Structure, life history, general the farmer the ideal prospect. The behavior, activities, and products of farmer has the money and the desire for the best of all manufactured lines, without fixed preference.

"There is only one way to reach all You can reach some few of them with magazines, but no one magazine reaches more than 6 or 7 per cent. Women's papers, street cars, bill It is easy to get the boy out of the boards, help, but the farm paper

Mr. Younggreen discussed the organization of the staff of the farm ter. The rule is: Once in him, always for success in the different positions. per or fail, be gone one year or fifty, vertising, predicting that publishers be driven from the agricultural field.

Volume 42

Kansas State Agricultural College, Manhattan, Saturday, March 4, 1916

DEMAND FOR COPPER BOOSTS PRICE

OF IMPORTANT CHEMICAL

Use of Bordeaux Mixture and Arsenate of

Lead Will Mean Double Ordinary Ex-

pense-Nevertheless, Proper

Treatment Will Pay

Kansas orchardists must face a new

and serious situation next spring,

brought about by the war, which has

caused high prices in spraying mate

rials, according to D. E. Lewis, assist-

ant professor of horticulture in the

Copper has been in such great de-

mand by the warring nations that the

Kansas State Agricultural college.

Number 21

HIGHWAY ENGINEERING CONFER-ENCE ATTRACTS MUCH INTEREST

Modern Agriculture Demands that Markets Be Made Accessible, Points Out President Waters-Experts From Kansas and Other States Speak

The good roads movement in Kansas was given a boost this week through the conference in highway engineering which will close today at the Kansas State Agricultural college. County officials and good roads enthusiasts from all sections of the state have listened to expert advice by road engineering authorities of the college and elsewhere. The program included several speakers from other states.

Good roads are both an economic and a social necessity and Kansas

during the past six years was probably the best and on the largest scale the world had ever seen, but the rains, snow, and frost during the past year have given them the appearance now of European battle fields."

"Ignorance of the correct methods of road drainage is perhaps responsible for many of the poorly drained highways in this state," suggested H. B. Walker, drainage and irrigation engineer. "Practically every road in the state can be drained. Public funds may hinder progress in road drainage, but in most of the Kansas counties the tax levies are sufficient for carrying out this first fundamental principle

"Road building without proper drainage is much the same as attempt

of road building. GOOD DRAINAGE IS NEEDED

price of copper sulphate has soared, asserts this authority. This demand has governed more or less the prices of other ingredients used with it in spraying solutions. Many inquiries have come to the de-

partment of horticulture from farmers over the state, asking where they could obtain certain commercial spraying materials and how much they would have to pay. The department attempted to answer these questions by writing to large manufacturers. The replies just received express a doubt as to whether or not the materials containing copper sulphate can be obtained at all within a short time and state that the selling price of copper sulphate is from 25 to 30 cents a pound.

LEAD ARSENATE PRICE UP

"Orchardists have been accustomed to paying approximately 1 cent for the materials used in one gallon of dilute spraying solution," says Professor Lewis. "This year they will pay at least 2 cents when Bordeaux and arsenate of lead are combined-if copper sulphate is obtainable under any circumstances. Lime and sulphur and arsenate of lead also will cost more than in previous years because lead arsenate has gone up in price.

"An orchardist can afford, if he has good trees, to use some Bordeaux, even with copper sulphate at 25 cents a pound. Five to eight gallons of spray per application will cost 30 to 50 cents a tree, for three applications. Add to this cost, that of two applications of lime and sulphur. This brings the expense to from 50 to 70 cents a tree. It is a poor tree that doesn't yield at least two bushels of fruit and they are mighty poor apples that won't bring 60 cents a bushel. will have them just as speedily as the ing to make concrete without cement. Thus, so far as the cost of spraying, people realize this fact, pointed out It is good drainage which forms the even at this exorbitant price of materials, is concerned, the two bushels of fruit represent a profit of 100 per cent on the investment.

"The best advice to the fruit grower is to use all precautions to conserve his materials, do his spraying on time, and do it thoroughly. If the application is made exactly when it should be, a greater economy of materials and a much better control of insects and disease result than if the spray is applied a week late. The spraying machine should be kept in good condition so that the orchard may be gone over quickly."

SCAB NEEDS COPPER SULPHATE

Unfortunately, there are diseases to control which demand the use of copper sulphate, according to this authority. Last spring there was a condition favorable to the development of scab. If the approaching season should be moist and cool there is almost sure to be a recurrence of the disease. Bordeaux is the best spray for the control of the scab, and copper sulphate is the effective element.

may be used with considerable effectiveness. This solution is made up in the ratio of one and one half gal- farm bureau meeting at Independence, lons of lime and sulphur-testing 33 Mo., on "The Fix we shall be in after other legumes, sweet clover possesses the obligations of the county board degrees by Baumé hydrometer-to 481 the War is Over." From there he gallons of water. In some places in went to St. Louis to attend a meeting air, thus making it possible to build the east, a 2 to 50 solution, or of the presidents of the colleges in the up the nitrogen content of the soil by

GOOD ROADS GET BOOST Kansas built up and were maintaining WAR HIKES SPRAY COST tend they get control. Usually, FOR PASTURE AND SOIL however, they admit that Bordeaux is better. Under present circumstances, an orchardist is justified in the use of lime and sulphur if the early spring is normal.

> "In past years, we have not hesitated to recommend lime and sulphur for the control of the scab, because, except in the eastern part of the state, it has not been troublesome in our usual warm, dry season," declared Professor Lewis.

> > LIME SULPHUR AND BLOTCH

"The apple blotch does not yield even so readily as the scab to lime-sulphur treatment. It has been determined definitely that control of the scab by this means is but slightly over 60 per cent, when many blotch cankers are present on the twigs.

"Under such conditions, no fruit grower may expect to control blotch perfectly with lime and sulphur. By the use of a 2 to 50 solution, we have been able to obtain but little over 60 per cent control, while with Bordeaux 90 to 95 per cent was gained. On susceptible varieties, such as Missouri pippin, Ben Davis and Gano, three applications of Bordeaux must be made for the best control.

"The dates of these applications vary in different localities. In the southern part of Kansas, the first application comes about two weeks after petal fall; in the northern and eastern portions, three weeks after petal fall. This is the most important application for blotch control, and if but one application of Bordeaux is to be made, it should be made at this time.

"The second spraying should follow two weeks after the first. The last is applied with the 'second brood moth spray'-eight to 10 weeks after petal

WILL REQUIRE MANY APPLICATIONS

"If lime-sulphur is used, it will probably be necessary to add one, possibly two, more applications to gain anything even approaching a satisfactory blotch control. In case the weather is hot and bright, it is dangerous to combine arsenate of lead with lime and sulphur on account of the strong likelihood of burning. This means that if an insecticide were used, it would have to be applied separately.

"Considering these facts, it appears that lime and sulphur for the control of the blotch would be more expensive than Bordeaux.

"It may be possible to get fairly satisfactory control of blotch by making one application of Bordeaux at the first date mentioned and following with lime-sulphur at intervals of two weeks, until the time of the regular application for the second brood codling moth. The control effected would depend largely upon the variety and the opportunity for infection. Such a method would not be advisable for the varieties upon which cankers are numerous.

"Varieties which are not subject to severe attacks of the blotch and which are not located adjacent to badly cankered trees may be safely sprayed with lime and sulphur. Trees such as winesap, Jonathan, Grimes golden, and York imperial do not often blotch severely."

ARKANSAS AND MISSOURI PEOPLE HEAR PRESIDENT

Doctor Waters Speaks to University Students and to Farm Bureau

Dr. H. J. Waters, president of the Summer strength lime and sulphur college, addressed the students of the University of Arkansas, at Fayetteville, this week. He spoke also to a stronger, is used by persons who con- Missouri Valley Athletic conference. the proper utilization of the crop.

SWEET CLOVER IS RECOGNIZED AS VALUABLE KANSAS CROP

Is Somewhat Exacting as to Where It Will Grow, but Thrives Generally in Eastern Part of State-Sometimes Used for Hay

After being grown to a considerable extent in Kansas for three years, sweet clover is being recognized as a valuable crop for pasture and soil improvement, while it may sometimes be grown to advantage for hay production where alfalfa or red clover cannot be successfully raised.

Like any other legume, sweet clover is more or less exacting as to type of soil, points out C. C. Cunningham, assistant in cooperative experiments, Kansas State Agricultural college. It does not thrive on acid or poorly drained soils, nor is it adapted to the heavy shale soils of southeastern Kansas. It thrives well on practically all other soil types in the eastern half of the state, especially those well supplied with lime. Acid soils not otherwise unadapted to sweet clover, may be treated successfully with lime or ground limestone to correct the acidity.

In western Kansas the growing of sweet clover is still in the experimental stage, except on creek and river bottom soils where it can be grown to advantage on some soil types too sandy or otherwise undesirable for alfalfa. It has not as yet proved a practical crop on the uplands where alfalfa cannot be successfully grown.

The limited data available regarding sweet clover as a dry land crop have not been very encouraging. Results in the western part of the state in the past season, however, have been favorable because of the heavy rainfall.

EARLY AND LATE PASTURE

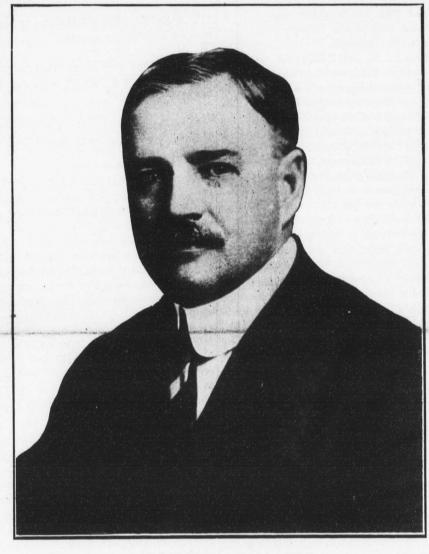
For pasture in eastern Kansas, sweet clover, says Mr. Cunningham, is not excelled by any other crop commonly used for this purpose. It rarely causes bloat and is practically equal to alfalfa in feeding value. Properly handled, sweet clover will furnish both early and late pasture. It has another advantage over ordinary pasture grasses in that it is much more likely to furnish succulent grazing during the summer months.

Best results for pasture are obtained where two fields of sweet clover are grown, one seeded a year later than the other. The crop should be seeded in the spring and allowed to become 12 to 15 inches high before it is grazed. It may then be pastured during the rest of the year. Too close grazing should be avoided. The following year the sweet clover will furnish early pasture.

FOR ROTATION CROP ALSO

If another field is seeded in the early spring, it will be ready to pasture by June or midsummer, depending on the locality and season, and the field first seeded can then be allowed to produce a crop of seed. Under ordinary conditions, the sweet clover will reseed itself and the pasture can thus be maintained indefinitely, and a seed crop obtained each season. If he desires to grow the sweet clover as a combined rotation and pasture crop, the farmer should seed a new field each year instead of allowing the crop to reseed.

Because of its ability to thrive on poor soils, especially those lacking in organic matter, sweet clover is exceedingly well adapted for soil improvement purposes. The plant roots, because of their size and deep penetrating powers, open up and loosen the subsoil to considerable depths. Like the ability to utilize nitrogen from the



DR. HENRY JACKSON WATERS

Dr. H. J. Waters, president of the foundation for convenient, easily college, in a conference address.

"You cannot build up good agriculture on poor roads," said President age are observed, good roads are pos-Waters. "The best dairy regions in Wisconsin and Illinois have more than 60 per cent of their roads improved. It is because the dairymen have to get to market with their milk. Wherever you find agriculture most highly developed, there you will find a road that goes with it. It is costing the farmers of Kansas nearly \$18,750,-000 a year to haul their tonnage to market. It is costing us more today to move a ton of produce over a mile of road than it cost in 1856."

WILL THE HORSE DISAPPEAR?

Within ten years the horse will practically disappear from the public high ways both for pleasure and for business, because he cannot compete with either the auto or the motor truck any more than the old freighter with his ox team could with the iron horse driven by steam. This was the prediction of W. S. Gearhart, state highway engineer. "It really looks as though old Dobbin will soon have to stay home on the farm with the cows,"

"These new methods of transportation require new and adequate systems of highway construction and maintenance. The system of earth roads some roads as county roads and carwhich the counties and townships of

traveled, and safe public highways. If the fundamental principles of drainsible. If these principles are violated, public funds are wasted."

'The highway laws of the state of Kansas are like patchwork, pieced together by succeeding enactments from 1868 to 1915," J. T. Kincaid, president of the Kansas Good Roads association, told the highway officials.

"The greatest need for change in the highway laws of Kansas," said Mr. Kincaid, "is for a concise, simple, and clear statement of the laws, so that the layman may understand them. As it is, it requires the services of the courts to interpret them."

Mr. Kincaid said that the laws relating to the construction and maintenance of highways in Kansas were full of contradictions and involved statements.

HOW TO IMPROVE ROADS

Possibilities in road improvement under the county road system and weaknesses of the present system were pointed out by C. F. Osborne, county engineer of Elk county.

"I have never felt," said he, "that ceased with the mere designation of

(Concluded on Page Three)

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H. J. WATERS, PRESIDENT Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor

Except for contributions from officers of the college and members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, MARCH 4, 1916

A New York man is making a plea for "10 months more." No, he's not in the penitentiary-he's in the legis-

Is it possible that the name of Uncle Alex. Greenwell is responsible for his having lived 90 years and in Missouri 76 of them?

Charlie Chaplin's press agent claims his clever client is getting \$10,000 a week. There are probably several men in the United States who'd consent to wiggle their knees and have whitewash poured on their hair for this amount.

IT'S TIME TO ORDER

The country is suffering from a shortage of freight cars. Unless the farmers do their ordering early so as to insure getting what they need on the farm in time, they will be seriously handicapped in many ways during the coming spring.

It is about the time of the year when farmers do their ordering. Seeds, nursery stock, machinery, fertilizers, repair materials, and many other things are ordered in late winter or early spring. If this has not been attended to already, it should be immediately.

A farmer's success depends on doing things in the right season. When spring comes, the farmer should have recorded in a single year." And the everything available to carry on his work. Any delay may mean loss of crops, time, and money.

CHEER UP, GWEN!

Cheer up, Gwendolyn, you may get by after all, for Dixie says one doesn't have to be good looking to act for the movies. And Dixie knows, for she has been on the screen for two years. Mary Pickford isn't beautiful, nor

Marguerite Clark-nor any of the rest. It must be ability alone that makes

So don't be despondent-you may arrive yet.

PINK PHILOSOPHY

A decided difference of opinion has arisen as to the results which will come of the threatened substitution of pink for blue in overalls.

When it first became known that blue jeans were in imminent danger of disappearing, a great sob went up from New York to Los Angeles. "There ain't no such things as pink overalls," wailed the Kansas City

Star. On second thought, however, the country seems inclined to take the matter more philosophically. Now that it has passed the stage of frenzied passion, it is less anxious to declare war upon Mr. Hamburger, who suggested pink overalls, and Germany,

wouldn't let us. Scarlet? No. Crimson? No. But a beautiful, delicate pink? Yes, indeed.

According to Mr. Ralph Waldo Emerson, who doubtless knew, there is no great loss without an equally large gain. It is the old law of compensation again. Whatif there "ain't never been no pink overalls" before? Can't the poor, downtrodden public have them now? If it should, the problem of injecting the long-desired esthetic touch into American life would be solved. The "everlasting dollar" would retire as a subject of supreme interest in the heart of the average ditch digger, in favor of problems in color combination. And why, may we ask, should not men have equal rights with women? Why should they not be privileged to select some bright and pleasing hue as the basis of a "color scheme"? Why should their individual notions as to harmony in dress not be respected? If a man wear blue pants, how can he wear anything other than modest blue, grey, or black neckwear? If, however, he don the pink apparel, what is not possible after his brave start?

The question for every American family should be not, "Have you a little fairy in your home?" but "Have you a spick an' span pair of pink overalls?" If so, we'll go to church in force, next Sunday-Ma with her pink shawl, Sis with her pink dress, and Pa with his pink pants.

When every American workman does deck up in a pair of pink jeans, perhaps England, one sunny morning after the war is over, will condescend to ask poor, depraved, peaceful, money-making America to take tea with her.

FEWER RAILROAD ACCIDENTS

Fewer passengers were killed on American railroads in 1915 than in any year since 1898, and when we go back as far as that we find the railroads doing less than four-fifths of their present passenger business.

The number of employes killed in 1915 was less than any other year since 1898, which seems to have been a record-breaker in its day. And there were then only half as many employes as there are now.

In the number injured we have just had the best year for passengers since 1906, and for employes since 1911, returns which score not quite so much advance as in the list of deaths, but still a material improvement.

By comparison with 1914, the year just closed marked, according to the Railway Age Gazette, "the greatest improvement in safety of operation ever figures are taken from the annual bulletin of the interstate commerce com mission.

Train accidents, in distinction from crossing accidents-in which the public is usually half to blame-reveal a large improvement. In 1910 train accidents killed 932 persons, and then in the succeeding years the following numbers, respectively, 867, 859, 849, 626, and 410.

What are the causes of this very gratifying progress? Steel cars, the perfection of block system, the electric control of the pneumatic brake, and the "safety first" campaigns. - Boston Herald.

READ YOUR SCALES

"Learn to read your scales." This is the sensible advice given to housewives by Rhea Brinsly McCormick, one of the young inspectors of the bureau of weights and measures. "Meat prices are high and people want all the necessity of all of this territory that they buy; they should not be willing to pay for a single lacking ounce. If there is a little overweight, the fact should be called to the butcher's attention in the same way a short weight is reported; this tends to bring about a business footing appreciated by both parties. Butchers who handle only the best cuts of meat have to ask bigger prices, for they pay more for their from which it is impossible to get any select meat. On the other hand, the more blue dyes. Some substitution butcher who buys in large quantities must be made for blue. What shall it gets his meat at less cost and he has

be? Not somber grey! We want men the cheaper cuts, which offset the surely wouldn't do. Green? No. can even afford to sell them at a little ning. Orange? No. Lavender? The women less than his rival. So much for the butcher," said Miss McCormick, closing her butcher book with an air of

> "The grocer is the next offender who makes the kitchen scales a necessity. Not that he intentionally gives short weight, but this is the day of package sued next week. Farmers about to goods, and they often come to him sow oats should see how much they from the wholesalers short in weight, can save by insuring against smut and he sells perhaps a number quickly through treating with hot water. Prebefore he knows them to be light vention is easy.

ception given to President Eliot of who will whistle at their work. Yellow prices he asks for the fine ones; so he Harvard at Lawrence Wednesday eve-

A predatory skunk gained access to the armory Saturday or Sunday night, and killed six of the eight guinea pigs under Doctor Mayo's care for inoculation experiments.

The bulletin on smut and oats has been delayed, but will surely be is-

Home An Educational Center

Ida M. Tarbell

Every home is perforce a good or bad educational center. It does its work in spite of every effort to shrink or supplement it. No teacher can entirely undo what it does, be that good or bad. The natural joyous opening of a child's mind depends on its first intimate relations. These are, as a rule, with the mother. It is the mother who "takes an interest," who oftenest decides whether the new mind shall open frankly and fearlessly. How she does her work depends less upon her ability to answer questions than her effort not to discourage them; less upon her ability to lead authoritatively into great fields than her efforts to push the child ahead into those which attract him. To be responsive to his interests is the woman's greatest contribution to the child's development.

I remember a call once made on me by two little girls when our time was spent in an excited discussion of the parts of speech. They were living facts to them, as real as if their discovery had been printed that morning for the first time in the newspaper. I was interested to find who it was that had been able to keep their minds so naturally alive. I found that it came from the family habit of treating with respect whatever each child turned up. Nothing was slurred over as if it had no relation to life-not even the parts of speech! They were not asked or forced to load themselves up with baggage in which they soon discovered their parents had no interest. Everything was treated as if it had a permanent place in the scheme to which they were being introduced. It is only in some such relation that the natural bent of most children can flower, that they can come early to themselves. Where this warming, nourishing intimacy is wanting, where the child is turned over to schools to be put through the mass drill which numbers make imperative-it is impossible for the most intelligent teacher to do a great deal to help the child to his own. What the Uneasy Woman forgets is that no two children born were ever alike, and no two children who grow to manhood and womanhood will ever live the same life. The effort to make one child like another, to make him what his parents want, not what he is born to be, is one of the most cruel and wasteful in society. It is the woman's business to prevent this.

weight. So the careful housewife finds it best to weigh things from this shop, to keep the control of the bill in her own hands."-Christian Science Moni-

THE RISE OF PETROLEUM

Petroleum has a useful history of little over half a century. In that time it has grown to a world's yearly production of about 300,000,000 barrels, with a sickening history of waste through burning oil wells, unstored surplus poured upon the ground, and insufficient provision against premature water logging of producing wells. One cannot say that petroleum production, even in the United States, has reached its maximum. Nevertheless, it has been pointed out that in the early days of the industry the average depth of well was 150 feet, 10 years later it was 400 feet. At the beginning of this century it was 1,100 feet, and today the average depth of oil may be placed at 2,000 feet, a very considerable proportion of the earth's workable crust. M. L. Requa put the probable life of the flowing California wells at 29 years. That is, our children will face being replaced.—Engineering Maga-

A QUARTER CENTURY AGO Items from The Industrialist of March 7, 1891

Mrs. Winchip spends the day in Topeka inspecting spring goods just

K. C. Davis has returned from Junction City and has taken his place in the senior class.

President Fairchild attended the re-

Lieutenant Todd and wife found time to visit college during their brief stay in Manhattan, returning from the Sherman obsequies in St. Louis. The lieutenant noted great changes in the various departments since his term of service seven years ago.

Professors Georgeson and Hood and Mrs. Kedzie report interesting institutes at Dodge City and Garden City last week. At Garden City they visited Buffalo Jones' herd of 49 bisons, inspected the United States Grass station, and made a brief call at the Bomfried kennels of Irish and Llewellyn setters.

H. W. Jones, '87, principal of the Americus schools, writes that the question of silos and silage is being discussed there, and that he has often been asked as to the merits, cost, and production of silage. "I have been doubly repaid for my study of agriculture," he concludes.

Good health in the poultry flock is mainly a matter of good birds, good houses, good feeds, and good care. Orange Judd Farmer.

An Oklahoma editor reports that a resident "died without the aid of a physician." The medical society is urged to take the matter up with the board of public utilities.-Kansas City

Although the sale of horse beef hasn't been authorized in Nashville, there are times when, sitting in a restaurant, the steak before us is strongly reminiscent of old Dobbin.-Nashville Tennessean.

MARCH

Hilaire Belloc

The northeast wind has come from Norroway,

Roaring he came above the white wave's tips!

The foam of the loud sea was on his

And all his hair was wet with falling spray. Over the keen light of the northern

day He cast his snow cloud's terrible

eclipse. Beyond our banks he suddenly struck the ships

And left them laboring on his landward way.

The certain course that to his land belongs

Drives him with gathering purpose and control Until across Vendean flats he sees

Ocean, the eldest of his enemies, Then wheels he for him, glorying in

battle songs.

his soul. And gives him challenge, bellowing

SUNFLOWERS

A little learning is a rare thing.

WARNING TO SKIRTS: Shoes will be higher this spring.

Once upon a time some cruel parents named their boy "Percival," and he never recovered.

Mrs. Gadding A. Bout will spend Saturday evening with her husband and children.

A man in Missouri died recently. He was 102 years old and had drunk sassafras tea all his life, both of which are very sad.

The assessors are now around seeking much that they can never hope to find, and the number of diamond rings and 17 jewel watches has decreased astonishingly.

The woman with a French poodle has about the same malignant influence on the cause of woman suffrage that a besotted backslider has on the church with which he periodically affiliates.

People who applaud the movies should not be criticised too severely. Doubtless they mean well and are kind hearted. Besides, their clapping is not the result of melicious intent, but of ignorance. Treat them kindly, and do not lock them up unless they become violent. Only the incurables should be shot.

THE LOVELORN LUCILE

Come, let us sing songs of the lovelorn Lucile,

Her name will rime well with a whole reel of eel's; And then we'll reveal what she'll feel

will appeal To her lovers-Let's sing of the love-

lorn Lucile.

NEW USE FOR COOK BOOK

There is a story of a man, desperately ill, who, having passed the crisis of his ailment, needed only, so the doctors asserted, an incentive to recover. He had had dire misfortunes and had lost all interest in living. Neither his business, nor his motor car, nor his children, nor his wife sufficed to lure him back to the trials of temporal existence. Then some inspired relative thought of the cook book. She put it into the hands of the sick man as he lay withering on his pillow. He turned it over languidly; then he fluttered the pages with transparent fingers, presently he asked to be propped up in bed. Before long he was whispering fervidly of what he was going to have to eat when he got well: those pig hocks with dumplings; hot waffles and syrup; schnittbohnen with sour sauce. What were rissoles, and ramekins, and bannocks? And why had he never known about toadin-the-hole? These were the sentiments that wooed him back to life. -Atlantic Monthly.

Miss Emma Evans, '15, is teaching near Liberal, which is her home.

Ralph Little, '15, has been visiting friends in Manhattan the last week.

Miss Fern Weaver, '12, is teaching domestic science and art in the high school at Wakeeney.

Miss Fay Elliott, '14, is teaching domestic science and art in Leon, this being her second year there.

Harry Cole, '12, since his graduation has been teaching chemistry in the high school at Belvidere, Ill.

Maynard Goudy, '15, is working for the Utah Power and Light company with headquarters at Hyrum, Utah.

Miss Nell Lindsay, '12, writes that she is enjoying her work as teacher of home economics in the high school at Globe, Ariz.

Raymond Brink, '09, is in Harvard university taking graduate work for the degree of doctor of philosophy in mathematics.

Fred Milner, '15, who is teaching agriculture and science in the high school at Holton, spent the week end with friends in Manhattan.

Miss Verma Treadway, '15, returned to her home in Newton Monday after spending the week end at the Delta Delta Delta house and attending the Pi Kappa Alpha dance.

Charles Gartrell, '15, visited college friends in Manhattan recently. Mr. J. F. La Tourette of Fort Hall, Mrs. Gartrell states that he and his uncle contemplate running a dairy farm three miles out of Kansas City.

G. E. Stoker, '90, writes from Topeka: "Our house was burglarized Sunday night, and all my clothes were stolen. I have consequently been compelled to practice the greatest economy."

Miss Blanche Vanderlip, '10, and Miss Anna Searl, '15, are in charge of the new course in home economics in the Allison James school, Santa Fe, N. M. It is a boarding school for Mexican girls.

Edgar A. Allen, '87, is superintendent of the Indian school at Chilocco, Okla. Mr. Allen has an article, "A Forward Movement," in the February number of the Indian School Journal. This journal is printed by the Indians at Chilocco.

Miss Clara Pancake, '03, writes to Prof. J. D. Walters that she is teaching home economics in the college department of the Iowa State Teachers' college at Cedar Falls. She took a course last summer in Columbia university, New York.

John M. Scott, '03, is in the agricultural experiment station of the mediately preceding the presentation University of Florida. "Fertilizer of the oratorio. The outside soloists Test of Sweet Potatoes" is the topic will be Mrs. Ethel Geistwell Benedict, of a pamphlet by Professor Scott, dramatic soprano; Miss Hazel Huntgiving a detailed description and the results of different fertilizers used on sweet potato ground.

W. F. Turner, '10, and Mrs. Lyda (Stoddard) Turner, '13, are in Amherst, Mass., where Mr. Turner has charge of the animal husbandry work in the extension service of the agricultural college. Mr. Turner writes, inclosing the alumni assessment for himself and Mrs. Turner.

Homer McNamara, '14, is superintendent of the La Carlota experiment station, one of the largest in the Philippine islands. The major part of his work is in animal husbandry and agronomy. He writes that he expects to come home for a visit this summer.

Miss Mayme Hassebroek, '04, is teaching domestic science in the State College of Washington. She has charge of a new dwelling in which the senior home economics girls, in groups of four, live for four weeks and do all the necessary housekeeping. Miss Hassebroek writes that she enjoys her work.

B. W. Conrad, '95, veterinarian at Sabetha, was in Manhattan recently. in Nemaha county. Mr. Conrad is on the agricultural college.

remembered among his friends as being one of the men that carried the spade away. This was the emblem handed down by the seniors before the shepherd's crook was designed for that purpose.

BIRTHS

Born, to Mr. Edwin C. Traxler and Mrs. Ora (Wells) Traxler, '92, 1427 Neosho street, Emporia, on January 13, a daughter, Ora May.

MARRIAGES

BLACKWOOD-SNAPP

Miss Avis Elva Blackwood and Mr. A. R. Snapp, '08, were married at the bride's home near Belleville February 11. They will make their home on Mr. Snapp's ranch near Sunburst, Mont.

POCATELLO REUNION

Miss Eleanor M. Sullivan, 1142 North Harrison avenue, entertained the graduates and former students of the Kansas State Agricultural college at an informal reunion February 12. The evening was spent in renewing old acquaintances and talking over old times. The college colors, royal purple and white, were used in decorating the rooms and, together with the valentine colors, red and white, were carried out in a three course luncheon. A flashlight photograph was then taken. Mr. J. F. La Tourette, '77, and Mrs. Alice Perry, '80, were the oldest alumni present.

The out of town guests were Mr. and Mrs. Horace E. Bixby of Minidoka, Mr. and Mrs. Plowman of Minidoka, Mr. D. D. White and Mr. W. W. White of American Falls. The Pocatello guests were Mr. and Mrs. M. S. Cole, Mr. and Mrs. E. G. Van Everen, Mr. and Mrs. F. J. Howard, Mr. and Mrs. L. W. Phillips, Mrs. W. E. Phillips, Mrs. H. J. Barnhouse, Mrs. R. R. Rice, Mrs. Frank Jernigan, Mrs. Alice Perry and son, George Perry, Miss Irene Fenton, Mr. D. W. Randall, Mr. George Van Everen, Mr. Phil Van Everen, and Mr. Harry Crump. Members of classes from 1877 to 1913 were present.

CHORAL SOCIETY WILL APPEAR IN ORATORIO

College Organization Will Be Assisted by Orchestra, Chicago Soloists, and Singers From Clay Center

The Choral society of 200 singers will present "Elijah" Monday, March 13, under the direction of A. E. Wesbrook, professor of music in the Kansas State Agricultural college. Four soloists from Chicago, 75 vocalists from Clay Center, and the college orchestra will aid in giving the concert.

A special half-hour program will be rendered by the visiting soloists imley, contralto; Worthe Faulkner, tenor; and Charles E. Lutton, bass.

An elevated platform is being especially built to accommodate the 40 piece orchestra, which will be under the leadership of R. H. Brown, assistant professor of music.

This event, say those in charge, will be beyond anything in magnitude heretofore attempted by the music depart-

"It is going to be good," says Professor Brown. "The chorus is well balanced and the soloists are superior. The new platform will materially assist in bringing together the chorus and the orchestra."

MAGAZINE CALLS KANSAS GRANARY OF THE NATION

Southwest Trail Features Agricultural Col-

The February number of the Southwest Trail, the agricultural magazine published by the Rock Island railway, features Kansas, which it characterizes as "the nation's granary." The paper contains interesting and practical articles on various phases of the know in advance what it ought to do. He is making arrangements for an agriculture of the state, including two It should know months ahead what 11 pounds was stated to be Mr. Liporganization to eradicate hog cholera pages devoted to illustrated material subjects are to be handled at a desig-pincott's suggestion, whereas it actual-

WRITE FOR THE WOMEN

IT'S THEY, SAYS CHARLES DILLON, WHO RENEW SUBSCRIPTIONS

News, Not Advice to Farmers, Belongs in Up-To-Date Agricultural Paper Editors Should Plan Work Months in Advance

Material of special interest to women is of utmost importance to farm papers because it is the women-the girls and the wife-who send in the renewals, according to Charles Dillon. managing editor of the Capper Farm publications and former head of the department of journalism in the Kansas State Agricultural college. Mr. Dillon gave a highly practical address on "Making up a Farm Paper and the Woman's Part of it' before students in industrial journalism and advanced English Thursday.

Both women and men on the farm



CHARLES DILLON

resent being told what they should and should not do, pointed out Mr.

"Advising is not popular any more," said the speaker. "We have ceased advising the farmers as to the proper methods of doing things. In fact, we are trying to eliminate the words 'must' and 'should'. The farm news printed carries with it greater force than advising, for it gives results of work done by farmers themselves. It is more impressive to print a news story of results and pass it on to the less successful farmer."

SNAPPY HEADS ATTRACT READERS Farm matter can and should be treated as news matter, Mr. Dillon asserted. This new theory does away with the old idea of separate departments. With the old method, if a man was not interested in poultry or dairying, he would pass on to some other department. In the new system the farmer is attracted by a snappy headline and will read the story because of its news value.

Individual departments in the Capper farm papers have been done away with. Material pertaining to a particular line of farming is distributed throughout the paper. This is in accordance with the demands of modern journalistic practices, in the opinion of the speaker.

"Reading matter for women is scattered throughout our paper," said Mr. Dillon. "We aim to stir up discontent, for discontent brings better things. Our women editors are allowed to go to any town or to attend any meeting where they think they can get a story for publication. They can buy any book and charge all these accounts to the paper. They write not merely about cooking and sewing, but about the many other things that interest women.

OPPORTUNITY FOR WOMEN

"Women working on farm papers are employed at \$20 a week and are sometimes advanced to as high a figure

Mr. Dillon gave the students valuable information as to the problems with which the editor of a farm paper must contend. The farm paper should nated time. It should be able to tell ly was 1.1 pounds.

the advertisers of its contents—as far as is humanly possibly-at any given time of year.

Papers with right motives will create a market for the advertiser and meanwhile offer to the buyer the best things of life.

Covers should be planned at least four issues ahead and covers for holiday issues months ahead, pointed out Mr. Dillon. It is usually understood that 50 per cent of reading matter and about 50 per cent of advertisements should constitute the make-up of the paper. The paper containing 36 to 40 pages will give ample reading matter to the subscribers. When it exceeds the latter number of pages, the proportion of reading matter is reduced.

GOOD ROADS GET BOOST

(Concluded from Page One)

ing for them in a desultory manner. A wider vision than this is necessary. "The county road system is a sys-

tem of highways that knows no township or district boundaries but stretches out across the county through every township connecting market centers and necessarily carrying a larger percentage of the traffic than its mere mileage would indicate."

"If 50 per cent of the funds now spent annually on our earth roads were expended judiciously for permanent construction there would soon be a marked improvement in the condition of the Kansas highways," said A. R. Losh, assistant highway engineer in the college. "This generation in Kansas can hardly expect to see more than 10 per cent of the roads improved with artificial surfaces, and our big problem at the present time is how best to improve the earth roads.

"The cost of highway bridges and culverts is a large item in the annual expenditure for highways in Kansas. Due to the slightly broken or rolling nature of the topography, our large watersheds, and the frequency of storms with heavy rainfall, the bridge and culvert problem is a big one in all parts of the state.

"At present about half of the highway funds, \$2,750,000, is spent annually for the construction and repair of culverts and bridges. In the past the bridge problem has always demanded the major portion of the highway funds of the state, and it is only within the past few years that any considerable money has been available for road work. It has also been true that in the past the type of bridge used has been determined largely by the money available, but there are now ample funds to build the structure that is best suited for the location so that the question of cost need not in most cases determine the design."

Others who spoke were P. J. Freeman, assistant professor of applied mechanics; S. N. Hawkes, assistant attorney general of Kansas; Thomas H. McDonald, chief engineer, Iowa highway commission; L. E. Conrad, professor of civil engineering; J. K. Codding, warden Kansas penitentiary: C. B. McCullough, bridge engineer, Iowa state highway commission; Dr. F. H. Newell, professor of civil engineering, University of Illinois, former director of United States reclamation service: Dr. R. K. Nabours, professor of zoölogy; W. H. Sanders, instructor in steam and gas engineering; Dr. L. I. Hewes, chief of economics and maintenance, United States office of public roads and rural engineering, Washington, D. C.; J. B. Marcellus, representative of the Association of Cement Manufacturers: H. E. Bilger, road engineer, state highway department, Springfield, Ill.

DO NOT FEED YOUR HENS TOO MUCH SALT IN MASH

College Uses 1.1 Pounds in Ration, Not 11 Pounds

Eleven pounds of salt would be entirely too much to mix with 220 pounds of other ingredients in a mash for winter feeding of hens, according to W. A. Lippincott, professor of poultry husbandry in the agricultural college. Through a typographical error,

TREAT SEED FOR SMUT

OAT AND BARLEY DISEASES LIKELY TO BE PREVALENT

Plant Expert Tells of Methods Successfully Used to Combat Destroyers of Grain Crops-Formaldehyde is Controlling Agent

Kansas farmers who expect to plant oats or spring barley are urged to give their seed the treatment necessary to control smuts which affect these crops and which will be prevalent this

"The formaldehyde treatment is effective in controlling the oat smut and the covered smut of barley and is more easily carried out on a large scale than the so-called hot water treatment," says L. E. Melchers, plant pathologist in the Kansas Agricultural Experiment station.

In the treatment for oat smut, one pint of formaldehyde is used to 45 gallons of water. Dip the seed and allow it to stand half an hour; or, sprinkle the oats, cover it with canvas and allow it to stand two hours.

When the dipping process is used the solution should be in a suitable tank or barrel. The seed treated should be placed in gunny sacks and plunged into the solution for a moment. It should then be raised and allowed to drain slightly. The operation is to be repeated until it is certain that all the grain is thoroughly wet.

SPRINKLING PLAN MOST COMMON

The sacks should then be removed from the solution and set aside for half an hour. Next the grain should be spread out in thin layers and dried. The seed, if thoroughly dry, may be sown immediately or may be stored in clean sacks or bins.

The sprinkling method is perhaps the most commonly used. It makes use of the same strength of solution. Where a large quantity of seed is to be treated, it is the more practical method. The grain should be spread out in layers from four to six inches deep, and the solution applied by means of a sprinkling can. One gallon is sufficient for treating approximately one and onethird bushels of grain. One man should sprinkle the seed while another shovels it over as in mixing concrete. Every kernel should be uniformly moistened. The seed should then be placed in piles, and covered with clean sacking, blankets, or canvas, and allowed to stand at least two hours, after which it may be spread out to dry. It may be planted immediately, or stored in clean sacks when thoroughly dry.

LOOSE SMUT HARD TO KILL

In the treatment for covered smut of barley one pint of formaldehyde to 40 gallons of water is used. The dipping process must be used if successful results are to be obtained. The seed must be soaked for two hours. If sacks are used one should allow more than sufficient room for the swelling of the seed. This treatment will also control to an appreciable extent, the so-called loose smut of barley, which generally is difficult to combat.

The germination of treated seed should be tested, and if the germination is low, the rate of planting should be proportionately increased. Precautions should be taken against freezing and sprouting after the treatments.

The cost of formaldehyde depends upon the quantity purchased. In amounts less than a gallon, the price per pint-a pint is equivalent, approximately, to one pound-is about 50 cents, but in large quantities it may be bought for 11 cents a pint. Solutions for treating seed may be used several times, but if they have stood exposed to the air for longer than 12 hours they should not be used. It is better to mix fresh solutions or keep the containers covered so as to prevent evaporation.

The man who is always chasing after high prices and who is always trying to "hit the high places" in farming usually lands in the hollows. For there never were two high places made yet that did not have a hollow between The man who sticks to the road is on high ground as often as on low .-Nebraska Farm Journal.

HERE'S THE HOUSE FOR SMALL KANSAS FAMILY

DESIGNED BY PROF. W. A. ETHERTON, IT WILL COST, ADAPTED TO KANSAS FARM CONDITIONS, ONLY \$960-SUITABLE FOR FOUR PERSONS

farm family that wants a small cottage hillside. The owner has furnished the at a low price and yet at the same following items of expense: time as much convenience and homelike character as possible. It is the design of W. A. Etherton, professor of rural architecture in the Kansas State Agricultural college. Built to suit Kansas conditions, it will cost \$960.

Sam's Model Farmhouse," which was designed by Mr. Etherton when he was sheet metal work under hardware. connected with the department of agriculture, but which was not intended by him as a model after all. It is small for the average farm family, but the need for houses of this sort is shown fireplace, but, in common with the by the hundreds of letters received by practice of absentee land owners in Mr. Etherton from every state in the building for farm tenants, it has none union and from foreign countries as of the kitchen conveniences. The house well.

"There is a great demand for plans



PROF. W. A. ETHERTON

of small and inexpensive houses for both town and country and for summer cottages," comments Professor Etherton. "Architects have not been employed to prepare such plans and a very few good ones have been published. It is a difficult and time-consuming task, however, for the most skilful architect to obtain, for the money invested in a house, the maximum of structural, utilitarian, and esthetic qualities."

TO ASSIST PRACTICAL FARMERS

The plan is the first and the smallest pensive farm dwellings, and of giving seats, the porch, the living room, and

Here is the house for the Kansas is the more expensive for being on a

,	Tollowing Items of emperate.
-	Lumber, hardware, and cement, \$407.68
9	Carpenter labor
f	Common labor 66.50
е	Plastering 47.10
t	**************************************

The plan is a modification of "Uncle | The painting is probably included in the item of common labor, and the

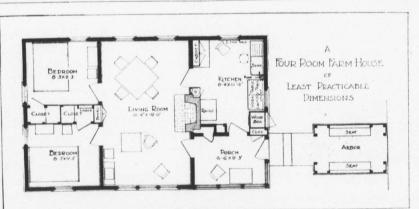
> Another house from this plan, but enlarged four feet in width and provided with a full-size basement, was built in southern Iowa. It has the cost but \$1,050, exclusive of the clay blocks for the foundation walls, which the owner had left from another build-

> This house, if built as well as it should be to resist the strongest of Kansas winds and the extremes of temperature here and, if provided with all of the closets and built-in conveniences-some of which are not shown on the floor plans-will cost about \$1.50 per square foot of floor area, or \$960. The outside measurements are 20 by 32 feet. Each additional foot in length, the width remaining the same, will increase the cost about \$30. Each additional foot in width, the length remaining the same, will cost about \$48. The cost of the house will, of course, vary with local conditions, with the class of construction and of inside finish, and with the amounts of materials and labor that need not be purchased.

WHAT DWELLING HOUSES NEED

Dwelling houses, Professor Etherton points out, should be useful, durable, and attractive. In addition to being economical in first cost and in maintenance, they should protect from excessive heat and cold, from wind and dust, from rain and snow, from ground dampness, from lightning and fire, and from intruders from without. They should promote cleanliness, convenience, comfort, and privacy. They should endure against wind, lightning, fire, decay, and wear.. They should be beautiful as an incidental quality and without a sacrifice of utilitarian and structural needs.

The house shown is more comfortof a series of farmhouse plans, with able in summer for having its walls the objects of proving the architectural partly shaded by a wide cornice. Its possibilities of the small house, of doors and windows, moreover, are proving the possibility of saving by placed for efficient ventilation. Its careful planning for room and for the attic is ventilated through ceiling and economic use of materials, more than roof. There is a fireplace flue for enough to pay for running water in ventilation. The kitchen is so placed the kitchen and for other conveniences that the heat of the range will blow and comforts not commonly provided away from other rooms and not into in such houses, of furnishing a simple them. The porch on the south side example of the qualities that should and all the rooms, save one, have obtain in plans for small and inex- southern exposure while the arbor



PROFESSOR ETHERTON'S PLAN

owners who must build small houses.

A house from this plan was built

direct assistance to farmers and farm the kitchen are all protected from the afternoon sun.

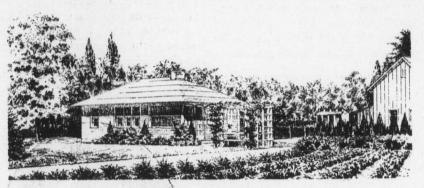
The house is more comfortable in near Kansas City, Mo., for winter also, for having the four out-\$679.28. It was built without the side walls and the ground near them kitchen conveniences and the fireplace exposed to sunshine. There are no ple in outline. Two lightning rod house, for having cold and hot water veniences and comforts that would and given but one coat of paint; but it "valleys" or other irregularities in points, one at each end of the ridge of at the sink; for having the closet for count much toward making the house has a solid concrete foundation, which the roof to hold snow. There are no the roof, and a cable grounded at the cooking utensils, the work table, the beautiful and homelike.

doors on the north side. The only entrance doors are on the east and the south and open from an inclosed tion. porch. The outside entrance to the living room near the fireplace prevents cold drafts across the room. The liv- there is but one chimney and this ing room is sheltered by other rooms chimney is built from the ground on two sides and but little exposed straight to the highest point of the least used during the day are placed with terra cotta flue lining, and the on the west, one of the coldest sides brickwork of the chimney is exposed of the house. Other features are the in living room and kitchen. The two chimney removed from the outside fires are close together and can more walls of the house to prevent a direct easily be watched, but are a safe distain heat in the brickwork, wide win- two places in the kitchen from which

two ends of the building, or at opposite corners, will give ample protec-

FIRE HAZARD IS SMALL

The fire hazard is smaller because dow area in the south end of the liv- water may be obtained at the same time



A VIEW OF THE HOUSE

ing room to admit sunshine, and a sun porch on the south.

FIREPLACE TO HEAT ROOM

The fireplace shown in the plan will, if well built and provided with a flue damper, be entirely adequate to heat the living rooms because both fireplace and room are so well protected from loss of heat. Resistance to wind is obtained by exposing little surface to the wind. Besides; the house is low, has a low, sloping roof, and is simple and regular in outline. There is but one chimney top and this one strong, and short and extending through the ridge of the roof. There is but one door in the outside walls, and this opens to the inclosed porch on the side of the house least exposed to the winds. The porch is inclosed, recessed, and under the main roof. The inside walls and the chimney are placed for effective wind bracing.

A help to protection from rain and snow is a simple roof which is the easier to make watertight and to clear of snow. Also, all slopes of the roof and all walls are exposed to sunshine. Only one chimney cuts through

-the wall pump at the sink and the drain cock at the bottom of the range boiler.

This house is more secure from intruders, from cats and dogs, mosquitoes and flies, for having but one outside door and all other outside openings protected by both sash and screens.

The house is the more easily cleaned because it is small, well lighted, and ventilated, because the kitchen is not a passage way for the men going to the living and the dining room, and because the lines of travel in the house are short. The fireplace is a convenience for gathering and burning floor sweepings and the smoke flue for removing dust laden air. An ash pit may be built under the fireplace and the range, and filled directly from both, thus avoiding the removal of ashes within doors. The ashes may be removed from a door beneath the floor and but once a year. A unique and inexpensive water supply apparatus, which will be described in a subsequent number of THE INDUSTRIAL-IST, provides cold and hot water as it the roof, and this one at the ridge may be needed for kitchen work, for

sink, the drop table, and the kitchen cabinet (or china closet) all as near as practicable to the center of operations; and for having the dining table, although in another room, so near the china cupboard, the range, the sink, and the work table. Storage closets, not shown on the plans, extend over on the north. The two rooms that are roof. The flues, moreover, are lined the kitchen cabinet, over the range boiler, over the porch closets and the two doors. There are shelves over the sink and near the range.

The kitchen is convenient as a laundry, because it saves steps. Fuel, loss of heat to the outside and to re- tance from all woodwork. There are fire, hot and cold water, sink, stationary tubs, and drain pipe for waste water, are all near at hand. The tubs are under the folding top of the work table and thus occupy no additional space. They connect with the sink drain and are supplied with cold and hot water through a single pipe that extends from the pump, thus representing an additional cost but little, if any, in excess of \$6, the cost of a work table of the same size being deducted.

> The kitchen may well be used as a bathroom, because of the heat of the range, the hot and cold water, and the waste water drain. The two doors can be bolted without inconvenience to other members of the family, and the window shades drawn for privacy. With a spray brush or a perforated shoulder ring attached by a rubber tube to the inexpensive plumbing device mentioned, one may have as sanitary and about as comfortable a bath in this kitchen as in a porcelain tub and a tiled bathroom.

TO FEED HARVEST HANDS

The living room has no door in either end and no stove out in the room. Either would reduce the usefulness of the room if not render it impracticable for both a living and a dining room. As shown here, the room is convenient for two family groups-one of which will find another use for the dining table when it is cleared after meals. The room is large enough for the longest table that harvest days will require and, with its two routes to the kitchen, allows the convenient feeding of a number of workmen. The little wall space marked "Books" affords convenient storage for books, papers, and other articles needed in the living room.

The bedrooms are each large enough for a bed, a dresser, and a chair, turning around of the beds and for passage room on three sides of the beds. The beds may head against any one of three walls in one room and of four walls in the other. The clothes closets are of a convenient size and well lighted-the inner one from the glass top ventilator in the roof just above it.

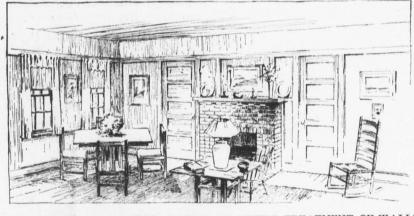
The attic, although reached only by a ladder in one of the closets, will be convenient for the storage of many things not in daily use. It is ventilated and lighted by a glass top roof ventilator.

The porch is inconveniently small for all of the demands that will be made upon it. It is, however, more convenient for having two closets in which may be placed the brooms, mops, work clothes, and similar arti-

The seats under the arbor, or pergola, are conveniently located in the shade of the house during afternoons and they relieve the porch of some of the demands that would otherwise be made upon it.

There is not, in the design of this house, says Professor Etherton, a single item of expense for beauty alone, and there is no strict adherence to the rules of architectural composition. There is, however, a beauty in the simple outline. This beauty may be enhanced a hundredfold by finishing the walls and roof in suitable colors and surrounding the house with trees, shrubs, flowers, and grass.

The arbor, or pergola, is a simple and inexpensive device for emphasizing the entrance to the house, for screening the back yard, and for affording an attractive covering for the and filled from the outside of the outside benches. It is one of the con-



THE LIVING ROOM, SHOWING EFFECT OF SIMPLE TREATMENT OF WALLS AND FIREPLACE

where it can more easily be made wa- house cleaning, and for bodily cleantertight. The wide and unbroken liness. The sink and the laundry tubs cornice and gutter protect all openings provide for the disposal of waste in outside walls. The porch may be closed with sash like a room.

The house is the better protected from ground dampness because it throws no portion of the ground about it into perpetual shadow and the wide cornice and gutter on all sides of the building, carry away from the foundation walls all the water from the roof. There is no basement to get damp, and the space under the floor can be well ventilated. The chimney room, and sewing room. The kitchis well within the building and on en, in addition to its use as such, dry ground, so that it does not absorb serves also as a laundry and a bathdampness. The walls are of wood. If they should be built of masonry, they should be protected by an effective damp proof course at the grade

The building can easily and inexpensively be protected from lightning because of being so small and so sim-

water.

Properly furnished and managed, this little house will be fairly convenient for a family of four. It will be more so because of the several purposes that some rooms and the porch may serve. The living room, for instance, corresponds to the wide hall found in larger residences in the south and, in addition to serving as such, it serves also as sitting room, dining

MANY USES FOR PORCH

The porch will be in demand as sitting porch, dining porch, sleeping porch, work room and play room.

The kitchen is more convenient for having the fuel box so near the range

SOW FLOWER SEEDS NOW

WILL MEAN EARLY BLOSSOMS SAYS PROFESSOR AHEARN

Plants May Be Started in House, Hotbed or Greenhouse-Suggestions for Attractive Grouping of Varieties Out of Doors

Now is the time to sow the seed of flowering annuals if early blossoms are desired. Plants may be started in the house, the hotbed, or the green-

Sow seeds in shallow boxes, but provide for drainage by putting one inch of coarse material in the bottom of the box before filling it with finer soils, is the advice of M. F. Ahearn, professor of landscape gardening in the Kansas State Agricultural college. Seed should be dropped into shallow drills rather than sown broadcast as it is easier to cover the seed to a sufficient depth to assure proper germination, to keep varieties separate, and to trans-

"When the plants have two to four leaves, they should be transplanted to to insure a sturdy growth. Here they may be left to grow until time to set them outside, about the middle of May. In case seed is sown in the house, plants should be exposed to the sunlight in a south or southwest windowa bay window is ideal. They should be kept rather cool to harden them.

PREPARE FLOWER BED CAREFULLY

"Care should be taken in preparing the flower bed if good results are to be expected. A heavy coating of well rotted barnyard manure should be applied. This should be spaded in deeply as soon as the soil will work up freely, and the surface should be raked and made smooth. The beds may then be planted according to plans, made before seeds were sown."

The most common type of flower bed is the circular one, points out Mr. Ahearn. This has many possibilities. It is hardly necessary to state that the tallest growing plants should be in the center with the lower growing plants on the outside, the shortest tive bed can be made by planting do not look well. cannas in the center-especially the large flowered, dwarf varieties_sur- house dresses," says Miss Florence rounding these with salvia splendens Hunt, assistant in domestic art in the (red sage) and bordering them with Kansas State Agricultural college. vinca alba. The cannas should be one of the bronze leaved varieties so the in her home and incidentally shorten leaves will harmonize with the red the hours over the wash tub, she must flowers of the salvia and the white vinca.

USING FOLIAGE PLANTS

An attractive circular flower bed can be made with foliage plants. Put two rows of red coleus in the center and then two rows of yellow coleus, with a border of dusty miller. Geraniums may also be used for a flower bed. Single varieties of scarlet geraniums make up the whole bed except the border which should be the silver leaved geranium or the little gray san-

Many types of flower beds are used, particularly those made in the form of a star, a crescent, or a sun dial. These designs are usually perfected by setting out such low growing foliage plants as Joseph's coat, echeveria (old hen and chickens), sweet alyssum, and lobelia.

AN OLD FASHIONED GARDEN

An interesting and attractive flower garden for the back yard is the old fashioned grandmother's garden, suggests Mr. Ahearn. Hollyhocks, sunflowers, live-forevers, day lilies, larkspur, snapdragons, nasturtiums, and gilliflowers are arranged in the naturalistic way-informally.

Many beautiful displays are made bed. The canna, the verbena, the an-blue-a medium blue-is good if a nual phlox, the salvia, the vinca, the woman wants a colored attire."

geranium, the coleus, the dusty miller, the caladium (elephant's ear), castor bean, zinnia, coreopsis, calendula, ageratum, and the tuberous begonia are some of the best bedding plants that can be sown in boxes according to methods already described.

On the small lawn it is not customary or advisable to make fancy flower beds. Suitable flowers in the spaces between the house and the walk around it and in the curves of the walk, produce an artistic effect.

WHERE SHRUBS ARE BEST

For beautifying the space next to the foundation of the house and making borders, shrubs are better than annuals, in the opinion of Professor Ahearn, because they do not leave a vacant space in winter as do the annuals. Dwarf shrubs, such as the barberis, may be used in these places. Spirea van Houttei, commonly called bridal wreath, may be planted in a vacant place near the porch steps. If flowers are desired instead of shrubs, the canna, the salvia, and the vinca are effective. If it is a sunny location, plants resistant to heat should be other boxes and set far enough apart planted, such as the zinnia or the marigold.

Too many flower beds in the front yard are undesirable, because they leave vacant, unsightly places in the winter. The flowers to be cut for bouquets should occupy an inconspicuous place or form borders, so that the flowers for the table or for some sick friend may be plucked without spoiling the looks of the front yard. Most flowers are pretty only two or three months in the year. Nothing makes a front yard more attractive all the year around than a blue grass lawn.

FLUFFY RUFFLES OUT OF PLACE IN THE KITCHEN

Work Dresses Should Be of Good Wearing Quality, but Not Elaborate-Toweling Attractive Material

What's what in house dresses? That is what every housewife wants to know. Old clothes with fluffy ruffles and decorations are not in good taste in the kitchen. Dresses made from plants making the border. An affec- heavy materials are not sanitary and

"There are a right and a wrong in "If a woman wants to look attractive wear the right dress.

"The first requirement of the costume for house wear is that it be made in one piece. This insures comfort and ease of adjustment. It must open in the front or on the front side. The housewife will find it convenient to have the buttons and buttonholes extend the full length of the skirt. If the dress is made in this fashion, it will be easily ironed. The kitchen frock should have short sleeves, a low neck, and a short skirt."

The material for the work dress should always be of good wearing quality. If trimming is used, it must be of better quality than the main part of the gown.

Crash toweling with blue border wears well and makes an attractive dress for the house. It sells for 15 cents a yard and is wide. The blue selvage can be used for trimming down live stock and the production of the the front and if the housewife can ply the needle well, a few French knots in blue at the collar will add a finishing of inquiry to the agricultural college. touch.

Blue and white checked toweling is good, too. A design of red crossstitch upon a dress from this material shows individuality and is not out of

"Aprons look well," says Miss by putting only one kind of plant in a Hunt, "if they match the dress. Cadet

CORN FOR EARLY FEED

GROW IT IN SOUTHEASTERN KAN SAS, IS EXPERT'S SUGGESTION

Price Will Be High in Midsummer Be cause of Shortage Farther North-Get Seed from Western Part of State

Many farmers in southeastern Kansas failed to produce corn in 1915 because of the excessive moisture. Under these conditions, C. C. Cunningham, assistant professor of cooperative experiments in the Kansas State Agricultural college, advises growing a quick maturing variety of corn for early feed, especially if hogs are being maintained.

An early variety planted as soon as conditions will permit will produce corn suitable for feeding purposes from three to five weeks before the larger and heavier yielding varieties of corn normally grown are ready to

While there is an abundance of corn in most parts of the state, the chances are that the price will be high during the midsummer of 1916 because of the shortage of corn of good quality in the northern part of the corn belt.

The farmer who has to use corn during this time will probably be able to raise it cheaper than he can obtain it on the market even though he plants an early variety which is not so productive as those normally grown. Under normal conditions, the difference in the July and August and the November and December price of corn is about 20 cents, which is sufficient to offset a considerably lower yield for the early corn. When it is especially advisable to grow early corn, that is, when a poor crop is followed by a large one, the difference in price may be greater.

NO CROP IN NORTHERN STATES

The usual source of seed of early varieties of corn for planting in Kansas, according to Professor Cunningham, is the northern states-South Dakota and northern Iowa and Nebraska. Early corn must necessarily be grown in this territory because of the short seasons. Seed corn is not to be had from these sources, however, because the crop failed to mature in

Early varieties of corn are also grown in western Kansas partly because of short seasons, but also because of the low annual rainfall. The Agricultural college June 15. His crop. The grain crops provide a cash acclimated western Kansas varieties acceptance of the invitation extended crop and feed for stock. of corn are hardy, vigorous growing to him by the college has just been reones because of the generally adverse conditions under which they have been grown. Experiments show that these varieties are better suited to eastern Kansas conditions than varieties similar in size and maturity obtained from the northern states. An abundance of corn was produced in western Kansas last season and seed of early varieties can readily be obtained from that part of the state. The agronomy department of the agricultural college has information as to where seed may be obtained.

COMMUNITY BREEDING TO BRING MONEY TO FARMERS

Letters of Inquiry to Agricultural College for Purebred Live Stock in Big Lots

The value of community breeding of same breed in a given community is emphasized again and again by letters Recently a specialist in animal husbandry from Tennessee wrote as follows to E. C. Johnson, dean of the division of college extension:

"The demand for purebred live stock of all kinds is increasing so rapidly in Tennessee that we are very much in need of definite information as to where the different breeds may be purchased in carload lots.

"With the idea that our county agents are in a position to help us very materially in locating such stock, I am writing you this, requesting that you send us a list of your agents in whose counties certain breeds predominate.

"Kindly send list of agents in whose counties have been organized county breeders' associations, giving in each instance the breed or breeds that are of special prominence."

Numerous letters similar in nature coming to the agricultural college show not only that there is need for community cooperation in live stock production but that collective attention by farmers to the same breed of stock will be profitable, points out Dean Johnson.

PEOPLE JUDGE FARMER BY LETTER HE WRITES

Use Simple Business Stationery and Ex press Thoughts in Conservative but Effective Language

The standing and the business ability of a farmer are judged largely by the business letter he writes, asserts H. W. Davis, associate professor of the English language in the Kansas State Agricultural college. This is particularly important if the farmer is specializing in purebred stock or poul-

"The amount of business transacted by letter in this country has increased enormously and the importance of a good business letter is becoming widely realized," says Mr. Davis. "Many farmers engaged in selling purebred spoil their sales by the poor letters they write. A good business letter also gives the farmer an advantage in dealing with the houses from which he

"The letter paper and the letterhead should be simple and businesslike. The language used should be simple and forceful-not overdone, and indicative of the kind of business in which the farmer is engaged."

FEDERAL EXPERT TO BE COMMENCEMENT SPEAKER

Dr. P. P. Claxon Will Deliver Address at College June 15-Is a Recognized Educational Authority

college, and Western Reserve uni- but wheat was fortunate, but not so in ience in a variety of educational acindustrial institutions and in universities, and inspection of high schools. For nearly five years he has been United States commissioner of education and has given the work of the federal bureau a high place in the minds of teachers all over the country. He is a brilliant writer and speaker.

FILIPINOS USE WATERS' REPORT AS AUTHORITY

President's Statements Concerning Agriculture and Education Are Extensively Quoted in Islands

That the report made by Dr. H. J Waters, president of the college, on agriculture and education in the Philippine islands is accepted as authority there, is indicated by newspaper and other comment in Manila. The report has been quoted as authority by the speaker of the Philippine assembly

WORK FOR WHOLE YEAR

W. E. GRIMES ADVOCATES DISTRI-BUTION OF FARM LABOR

Combine Crop Rotation and Live Stock-Will Keep Soil Fertile and Business Stable-Fewer Horses Will Be Necessary

Diversity of farm enterprises which make possible an adequate distribution of farm labor through the year is advocated for Kansas farmers by W. E. Grimes, assistant professor of farm management in the Kansas State Agricultural college.

"Of two farmers having approximately the same amount of work, the one who does the greater part of it himself makes the greater profit," says Mr. Grimes. "By distribution of labor through the year it is possible for the farmer to do much of the work himself. The difficulty with single crop farming is that it demands labor only at certain seasons of the

"Fewer horses will meet the requirements on a farm if the labor is well distributed. In the case of wheat farming a large number of horses are required for the preparation of the seedbed, for seeding, and for harvesting, while at all other times many of the horses are idle."

SOW LESS WHEAT

If less wheat were sown and the land devoted to other paying crops the work would not all be crowded into comparatively short periods, points chickens have excellent catalogues but out this authority. A combination of a good crop rotation and a reasonable amount of live stock will give profitable work for a greater part of the year than crop farming alone. A good rotation will distribute the labor throughout the crop season and live stock will provide labor during the winter months. Such a type of farming has also the advantage of maintaining soil fertility and giving stability to the farm business.

A good rotation of crops should include a grass or legume crop, a cultivated crop, and a grain crop, in the opinion of Mr. Grimes. These do not all require labor at the same time. The grasses and legumes furnish feed Dr. Philander P. Claxton, United for live stock and may improve the States commissioner of education and fertility and physical condition of the one of the best known educators in soil. The cultivated crops furnish America, will deliver the commence- feed for live stock, aid in controlling ment address at the Kansas State weeds, and may be used for a cash

"A diversity of crops gives less chance for a complete crop failure," Doctor Claxton holds degrees from says Mr. Grimes. "In 1914 the souththe University of Tennessee, Bates ern Kansas farmer who had nothing versity, and has studied extensively 1915 when wheat was a failure in that in Europe. He has had wide exper- portion of the state. The farmer who had wheat together with some alfalfa, tivities, including superintendency of corn or sorghum, and live stock was city schools, teaching in normal and better situated, considering the average of the years."

FREE READING COURSES SHOW HEAVY ENROLMENT

Total Is Now 1,750, of Which 1,450 Have Entered Since First of Year

More than 1,350 students have enrolled since the first of the year in the free reading courses of the Kansas State Agricultural college home-study service, conducted by the division of college extension, according to M. G. Burton, director. The total enrolment is more than 1,700.

Courses offered cover a wide range of subjects in agriculture, home economics, education, and industry. They are prepared especially for busy people and the instruction given is planned to give immediate help in solving the every day problems of and is being generally accepted by the farm and home life. Besides the stuintelligent people of the islands as dents in the free reading courses, the meeting the practical conditions exist- extension division is caring for 566 students enrolled in extension courses.

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H. J. WATERS, PRESIDENT..... Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor

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Newspapers and other publications are invited to use the contents of the paper freely without credit.

The price of THE KANSAS INDUSTRIALIST is 75 cents a year, payable in advance. The paper is sent free, however, to alumni, to officers of the state, and to members of the

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SATURDAY, MARCH 11, 1916

If a woman complains of a tired feeling, the average physician looks at her tongue.

The man who attempted to rob the safe in the Armour packing plant pleads that he was only trying to bring home the bacon.

After surviving 18 months of war, royalty has lost its last vestige of distinction. King George's favorite dog has just been beaten by one owned by a plain Mister.

While the purity leaguers are warning the public against the evils of inhaling cigarette smoke, why doesn't some one start an agitation also against the inhaling of coffee and soup?

THEN AND NOW

"Chickens"—the metropolitan breed is not here referred to-is a term properly associated with "Johnny." It is all very well to speak of fanciers fowls as poultry, but not of Johnny's No, his are just plain chickens.

Remember that day when you rushed home from school to see how the chicks were hatching? How you had thought to fool the family by slipping in a duck's egg? And how you forgot that it took four weeks, so the joke was on you?

Recall the fun of gathering the eggs before you woke up to the fact that that was a girl's job?

No incubators then. No brooding houses. No lice powders. No milkfed hens. No leg bands. No leghorns, nor Rhode Island reds, nor barred plymouth rocks. Not even a poultry fancier. At least not so far as Johnny knew.

There was just old Biddy-and she was old too! She did the laying and the hatching and the brooding. There were grain, grass, and insects for food. There were nests in the hayloft. And there was eight-year-old, frecklefaced, red-headed Johnny!

Today, Biddy is Imperial Queen IV. who leaves her progeny in the royal nursery; plain roosters have become cocks and cockerels who don't even crow without offering an apology; and Johnny has become Master Clarence, who wears a wide-brimmed hat designed to avoid sunburn.

A FARMER'S TRADEMARK

Practically every manufacturing firm has a trademark. The trademark is its biggest advertisement. It stands devoted little energy to farming. for quality and the standard of the goods produced by the firm.

Farming is the biggest manufacturing business in the world. Then why should not the farmer have a trademark-or, better, a name for his farm? Merely naming the farm would not Mountain and northern Luzon provraise the quality and standard of that lines together and they became better

THE KANSAS INDUSTRIALIST produced a little better grade of products than the average farmer, the name of the farm would help the consumer to remember where he received the best of those particular products. The consumer would associate quality and fair dealings with that farm's name. This would not only increase the selling price of the products, but would increase also the value of the

COMMUNITY BUILDERS

You cannot boost a community if you have not good roads. You may talk all you want to about the opportunities and the advantages of your community, but when your roads are bad they naturally contradict what you say.

Good roads are a sign of prosperty. Not only do they speak of material advantages, but they show progressiveness. They emphasize the fact that the people who have made money from the country are willing that a portion of that good fortune should be invested in improvements.

Such improvements point out the opportunity and the advantages of the community. Furthermore, they speak of the progressive spirit of a people with whom it is a pleasure to abide.

THE MODERN HIRED MAN

We got a new "hired man." I always did like the hired man, but this one is uncommonly nice.

We used to pump the old pump for hours with the stock fighting for their turn; now in 10 minutes the chore is

We used to grind feed with the horses; but now the hired man does it, and you don't get a sore throat keeping him going.

This is all we have asked of him yet, but a feed chopper and a cooker are waiting for his leisure, and "ma" is in hopes he'll do the washings soon.

That's the kind of a hired man to have-not afraid to do anything; always on the job-even Sundays.

No need to worry about his teaching the children bad words and worse habits; no need to worry that he'll quit when you need him the worst.

Does not stick for higher wages or give notice that someone has offered him more.

No extra "hand" to cook and wash for. More work, more satisfactorily done. That is the modern hired man if you have none, get one even if you must get him on the installment plan.

They make life on the farm interesting for the boy-and will help keep him happy. What boy but loves a machine.

If you want to be boss all of the time and make short work of long jobs, get a gasoline engine. - A Farmer's Wife in the Dakota Farmer.

A PHILIPPINE FAIR

The big agricultural fair and carnival at Baguio, Benguet, attracted many visitors to the capital of the Mountain province, and was a decided success. The agricultural and industrial exhibits were of great variety and of excellent quality. The province of Pangasinan won first prize for the best agricultural exhibit. Benguet was awarded first place for largest variety of agricultural products. Kalinga landed second place for her agricultural exhibits.

Competition was keen on all staple products, rice of course leading in interest. There was a big display of tobacco, sugar cane, corn, beans, and vegetables. The provincial exhibits were tastefully arranged and attractively displayed in both agricultural and industrial lines, the industrial exhibits leading in nearly all the mountain provincial booths, yet the agricultural exhibits were a surprise to many visitors who were of the impression that the mountain people

There was a creditable display of live stock and poultry which attracted favorable attention and comment and the judges were busy for several days in awarding the prizes in these lines.

The fair brought the people of the

interest in agriculture, in live stock go down if they could not turn to this and in industrial work and was an ever ready source of aid and comfort. of the promoters, who spared no this admirable organization than that efforts to make the Northern Luzon fair a success.-Philippine Farmer.

REVIVING A LOST ART

The champion speller of Ohio is a nineteen year old boy who recently made a record of 87 words out of 100. In the list we notice the following: Opelousas, desuetude, dytiscus, sacerdotal, paulosphore, triglyph, roceme.

The Ohio champion deserves credit for proficiency in what has lately been

it should continue to prosper and grow as it has done in its first half century of existence. - New York Trib-

A QUARTER CENTURY AGO

Items from The Industrialist of March 14, 1891

Professor Brown spends Sunday with his family in Leavenworth.

Two hundred and forty volumes are sent to the bindery this week.

Industrial Education William C. Redfield, Secretary of Commerce

I wish, as thoughtful American citizens, you would grasp what would happen in this country if on a certain day next year or the year after it should turn out that every boy and girl in America knew how to do some one thing well. I do not know any other single thing that would be more securing in its power upon our social life, more uplifting in its power upon our industry, more certain to bring peace and happiness throughout our land. The country is full now of boys and girls who have not been taught, for there is none to teach those who seek that they may enter equipped upon the road of life which all of us find strenuous enough.

Finally, let me say that industrial education is not educating the men into the mill. I have been told that it was and that what was sought was to train a working class and that it not only attempted to train our children into the mills but to develop class legislation in their behalf. Both are utterly untrue. Industrial education is as broad as every phase of industry, and those who teach it most and urge it strongest do not wish it confined to any narrow groove of single processes. We want to have taught trained mechanics, not merely the man who can run a drill but a man who can run a shaper too and run them both and not be puzzled if the next machine is a multiple drill press. We want to train our women in no single narrow line of preparedness for life but to open to the minds of these our young people not that which shall separate them in a class, not that which shall condemn them to a life of mill work, but those principles and those practices upon which industry is founded, that the whole broad field may be fully open to them.

considered a lost art. We trust he can pronounce and define the 100 words. Also we hope he is capable of using them correctly in sentences.

Spelling needs to be encouraged in the public schools. However, if there is to be a contest in Iowa we hope a different system may be used. We suggest the newspaper as a source of words. Every boy or girl who can spell 85 out of 100 of the most difficult a college band. words appearing regularly in the daily press should be given a reward of merit by the school boards.-Des Moines (Iowa) Capital.

HONESTY ON THE FARM

Honesty pays high dividends in selling the products of the farm and poultry yard. It pays in many ways. What an inspiration and valuable moral lesson it is to children-the impression upon their minds as they grow up-that honesty pays; that the man with a spotless reputation gains who drop out for the season's work on not only in ducats and dollars but in the farm. The enrolment for the year the respect and confidence of his customers and the public generally by square dealings and strict adherence to his promises!-I. H. Motes in the Ohio Farmer.

THE Y. W. C. A.

Fifty years ago a small group of Boston women having a desire to help young working women and blessed with an abundant faith started the first Y. W. C. A. in this country. Their work has prospered amazingly. From that small beginning it has spread all over the country and into foreign lands, and a strong national organization has been formed.

Of the value of the work done by the farm's products. But, if the farmer acquainted. It created a greater gency and time of stress might often rection of Professor Failyer.

F. A. Waugh, fourth-year student, has just completed a handsome plan for a 40-acre park in McPherson.

Doctor Mayo spent several days this week at the meeting of the State Veterinary association at Wichita. The students under the direction of

Professor Brown, and with the help of Lieutenant Bolton, have organized

A company of young men have submitted to the faculty a proposition for a college paper, to be published weekly and be under sole control of the students.

Professor Walters has been appointed one of the teachers in the pedagogical division of the Winfield Chautauqua assembly, to be held June 22 to July 3.

New students drop in every few days still, to fill the niches left by those has already reached 560.

Ex-Senator Ingalls has written that he cannot accept the invitation to the Alpha Beta and Webster Literary societies to address them at commencement, on account of previous engage ments.

It is a pleasure to announce that two warm friends of the college will for three years more have a voice in its management, the governor having re-appointed Regents Forsythe and Wheeler for the term beginning April

D. Scheidtweiler, who has been connected with beet-sugar interests in Germany for 50 years, is now visiting Young Women's Christian associa- Kansas with a view to testing the caption there will be no question. Its abilities of this state for raising beets branches are social centres, clubs, of high per cent in sugar content. He educational institutions, places of help has been consulting this week with our and inspiration for thousands of experiment station council as to the

AMBITION

Christopher Marlowe

event well worthy of the tireless work The public can have no better wish for Nature, that framed us of four elements

Warring within our breasts for regiment,

Doth teach us all to have aspiring minds:

Our souls, whose faculties can comprehend

The wondrous architecture of the world,

And measure every wandering planet's course Still climbing after knowledge infinite,

And always moving as the restless spheres

Will us to wear ourselves and never

Until we reach the ripest fruit of all.

SUNFLOWERS

If the war is responsible for all that they say it is, the man who suggested it ought to be shot at daybreak.

HEALTH HINT: Efficiency is a poor substitute for righteousness.

P. S. So is pietism.

P. S. (again) And formalism.

Marie, the youngest daughter of Mrs. Gadding A. Bout, has the measles. The mother is not expected to survive the quarantine, but Marie will be up and around in a few days.

Now that the babies have all been saved, it might be a good idea to start an agitation for a national "baby doll" or "chicken" week. The lost, strayed, or stolen toll of "chickens" in our fair land is stupefying and something should be done immediately toward the inauguration of reclamation proceedings.

BRAVE LUCILE

Let's shower praise on brave Lucile, The maid of modest ways,

She will not giggle, shout, nor squeal; In quiet paths she strays. She dotes on tiny violets

That hide beneath the stones, She loves to lie on mossy banks And rest her weary bones.

Lucile loves not the garish day, She hates society; She thinks she ought to work and pray, She's different, you see.

MARY'S TROUSSEAU

Mary and her mother finished up the supper dishes. The children were abed in the front room. The old man had gone for his evening visit to the corner.

"Only a week more, ma."

"I know, Mary. I'm countin', too." "I got everything ready that a girl can make, ma. But there's some things I can't make. I just gotta have a little money, ma."

"I been thinkin' about that, too, Mary. I wish you was gettin' married some other time. . . . If you could borrow the money and then work a little after you get married, so as to

"But I resigned at the store, ma. A week from today is my last day." "I don't see where it's comin' from,

then. Four days is all your father worked this month. . . . And now you're going to stop work, and that'll be \$4 a week less comin' in. . . Couldn't you get the things somehow and let Jim pay for 'em afterwards?" "And have Jim remindin' me of it all his life?"

Mother and daughter sat down, and Mary brought her trousseau from its hiding place and spread it upon the table-poor little garments that she had tried so hard to make as dainty as the elegant things she sold over the

counter at the Mammoth store. "I don't see what more you need, Mary."

"Shoes, ma, and a corset, and stockings. I can't make them things, ma, can I?"

The woman sighed.

"If it's gotta be, Mary, I s'pose it's young women who, lacking them, would best way of carrying on a test, and gotta be. You got one more week's find their lives poorer, who in emer- will begin the work at once under di- pay comin'. . . . You can have that."-Newark (N. J.) News.

John W. Hepler, '15, is teaching in the Iola high school.

W. A. Bright, '15, is practicing veterinary medicine at Solomon.

R. M. Phillips, '14, is instructing freshmen in the University of Washington.

J. R. Cooper, '12, is a member of the faculty at the University of Nebraska.

Louis Aicher, '10, of Aberdeen, Ida., visited friends in Manhattan a few days last week.

Miss Ada Worley, '13, is teaching domestic science and art in Haley, Ida. This is her second year there.

The Rev. William Orr, '10, and Mrs. Eula (McDonald) Orr, '12, are living in Porto Rico, where Mr. Orr is pastor of a church.

Miss Claire Hoaglin, '13, is attending the San Diego Normal school at San Diego, Cal. Her address is 4320 Campus avenue.

Robert Campbell, '13, of Attica attended the Hereford sale. While in Manhattan he visited his sister, Miss Hannah Campbell.

Miss Elva Akin, '05, who is teaching in the high school at Osborne, visited her parents and friends in Manhattan recently.

Miss Blanche Ingersoll, '11, is teaching domestic science at Ames. She writes that she is enjoying her work and that a large number of Kansas people are at Ames.

E. J. Walters, '13, is here on a visit with his parents, Dr. and Mrs. J. D. Walters. Mr. Walters has been working for an architectural firm in Atchison since graduation.

John Harris, '13, was in Manhattan Friday and Saturday to attend the Hereford sale. He recently returned home from Chicago where he was engaged in hog cholera serum work.

James O'Connel, a former student of the Kansas State Agricultural college, and Mrs. Maye (Burt) O'Connel, '11, are living near Coldwater on their ranch, which they have named Round Oak ranch.

Miss Margaret and Miss Maria Morris, '11, are teaching domestic art in Hastings, Nebr. The former is supervisor of domestic art in the grades while the latter is domestic art instructor in the high school.

D. H. Otis, '92, has devised a simple method of keeping accounts on the be one or more courses offered each farm. Mr. Otis and his wife, Mrs. Mary (Lyman) Otis, '94, have published a system for keeping household accounts. President Waters has a copy of each in his office.

Miss Mary Nixon, '14, is teaching in the Strong school two miles northeast of Manhattan. Equipment has recently been purchased for the domestic science work and one hot dish is served to the pupils each day for lunch. The Strong school has two years of high school work.

B. A. Pratt, a student in the college in 1910 and 1911, who is head of the department of agriculture in the Warrensburg (Mo.) State Normal school, has been elected head professor of agriculture for the summer session of the George Peabody College for Teachers at Nashville, Tenn. He will receive his master's degree from that institution in June.

J. A. Vohringer, '13, and Mrs. Irene (McCreary) Vohringer, '11, are visiting relatives and friends in Manhattan. In a week they expect to leave for Southington, Conn., where Mr. Vohringer has charge of an orchard owned by a company in which he holds stock. Mr. and Mrs. Vohringer have been on a farm in eastern Kansas for the last year. Previous to this they lived in Georgia, where Mr. Vohringer had charge of an orchard belonging to the company.

John V. Hepler, '15, is teaching agfor the department of agriculture, of the state.

which a detailed description was given in a recent edition of the Lampoon, the paper published by the department of journalism in the school. Experiments are not all carried on in the laboratory, however. Plots of ground are furnished on which experimental crops are planted. There is every indication that Mr. Hepler has his students interested and is making a success of his work.

MARRIAGES

KNOX-SIEGLINGER

Miss Helen Knox of Washington. D. C., and Mr. John Sieglinger, M. S. 15, were married March 1 at the home of the bride. They will be at home in Woodward, Okla., after April 1. Mr. Sieglinger is engaged in experimental work for the United States department of agriculture.

AGRICULTURE IN NORMAL

C. R. Jaccard, '14, is professor of agriculture in the First District Normal school at Kirksville, Mo. He is doing a wide variety of successful work, including horticulture and landscape gardening.

Concerning one of his courses, the Normal School Index says:

Mr. Jaccard, our wide awake agriculture teacher, has conceived another new course which he believes will meet a demand found among young teachers of science. It seems that teachers attempting to teach elementary science are not qualified because of lack of proper subject matter. They are not familiar with the immediate surroundings and have not acquired habits of observing either the natural or the phenomenal occurrences of nature, so they are not able to impart such knowledge to the pupils.

The primary object of this course will be to give enough information about the common things of nature to create a desire in the students to observe the workings of nature, as found about them.

The course will consist in studying birds, wild flowers, weeds, and trees which are common to this locality, and will be given under the name of Natural Science. The laboratory work will be field trips with the purpose of collecting and identifying specimens. Bird studies will be made by learning their natural habitats by the aid of binoculars.

This course will certainly meet with the hearty coöperation of the students as it will be both practical and interesting, especially to those students desiring to teach elementary science or nature study.

Beginning next quarter, there will quarter in agriculture of high school

WAUGH ON PREPAREDNESS

Frank A. Waugh, '91, professor of and scape gardening in the Massachusetts Agricultural college, writes to the Springfield Republican a characteristic letter on preparedness for war. He deals in a humorous vein with the protection of Kansas against invasion, urging an army of 5,000,000 men and a navy operating in the Kaw.

"I have just read," writes Professor Waugh, "that we must have 250,000 soldiers to defend the Panama ditch and 40 new dreadnoughts to protect the Boston Transcript, but nobody seems to consider Kansas, which is a thousand times more valuable than either."

CRABTREE TO BE DISTRICT AGENT IN WESTERN KANSAS

Will Continue to Be Closely Identified with College Extension Division

P. E. Crabtree, specialist in crops in the division of extension, Kansas State Agricultural college, has become district agricultural agent in western Kansas, with headquarters at Scott City. Although he has changed his headquarters, Mr. Crabtree will be as closely identified with the extension work of the college as formerly, since the agricultural agent work in western Kansas is conducted by the college.

Mr. Crabtree has been unusually sucriculture in the high school at Iola. cessful in institute and farm visit A new laboratory has been equipped work, and is well known throughout

LOOK OUT FOR WEEDS

ALFALFA FIELDS ARE LIABLE TO BECOME FULL OF THEM

Cultivate as Soon as First Crop of Hay Removed, Advises Ralph Kenney-Spring Tooth Harrow and Other Implements Successful

Kansas farmers are warned in advance that unless precautions are taken many alfalfa fields in Kansas will be veritable seas of weeds following the first spring cutting. Due to the luxuriant growth of weeds in 1915, millions of seeds now lie in the fields ready to germinate at the first opportunity. Farmers are advised to cultivate as soon as the first crop of hay is removed from the ground.

"Removal of the hay," says Ralph Kenney, assistant professor of farm crops in the Kansas State Agricultural college, "will produce ideal conditions for the germination of the seed of weed and grass annuals. Something must be done to keep the weeds from sprouting or they may literally take the alfalfa fields this year.

"In seasons that are wet and cool, like 1915, it is profitable to cultivate after the first and second crops of hay because of foxtail and crab grass coming on at that time. If this had been done last year, millions of these grass seeds would never have matured.

YOUNG FIELDS BADLY DAMAGED

"Many fields appeared to be taken by foxtail and crab grass last year and their owners are wondering what to do with them. If the field was less than two years of age, it is likely much damage was done. If beyond that age there probably was plenty of moisture to provide for both the weeds and the alfalfa."

There is no one tool that is decidedly the best for cultivating alfalfa, in the opinion of Mr. Kenney. Any tool with teeth and with the ability to spring upward or sidewise when it comes into contact with alfalfa crowns should do excellent work. The spring tooth harrow fitted with narrow teeth works successfully. Numerous implements are made for the special purpose of cultivating alfalfa.

CULTIVATION HELPS SOIL

The disk harrow was one of the first tools used for the cultivation of alfalfa. At one time it was highly recommended for that purpose. The argument for the disk harrow, that it splits the crown of the plant and thereby has a tendency to thicken the stand, does not hold good, for in many cases the crown is cut off or cut open. The splitting of the crowns causes them to partly dry up and die and at the same time exposes the living portion to the attack of fungous diseases which are numerous in this state.

The killing of weeds and grasses is not the only benefit derived from the cultivation of alfalfa, points out Mr. Kenney. The soil in alfalfa fields which are several years of age is benefited by occasional cultivation just as the soil for any other crop is benefited by cultivation. Cultivation is sometimes practiced in late fall or early winter to turn up and expose insect larvæ or eggs to the winter cold, which destroys them.

DON'T MAKE MUSEUM OUT OF YOUR ROOM, GERTIE

Many Girls Use Too Many Trinkets for Dec oration, Says Art Expert-Keep Adornment Simple

A museum effect brought about by the excessive use of trinkets in bedroom decoration should be avoided by girls who wish the purpose of the room to be expressed-rest and quiet-according to Miss Araminta Holman, instructor in home art in the Kansas State Agricultural college.

"The bedroom should be a unit in color and design," says Miss Holman. 'It is a place where a girl can express her personality and character and where she may use her preference as to color, design, and decoration. The pictures should be few in number and quiet in tone and a few personal trinkets and pennants may be used if they are well arranged and do not give a spotted effect.

"Light, dainty walls that are neutral in color are good. The furniture should be simple in line and construction and easily cleaned. White enameled furniture is often used and makes a bedroom attractive."

AGGIE CO-EDS LOSE TO GIRLS FROM WASHBURN

Young Women Argue Abandonment of Monroe Doctrine-Forsenic Season Will Close Late in April

The Aggie co-ed debaters lost to Washburn in the dual debate. The decision was 2 to 1 at both Topeka and Manhattan. The question for debate was, "Resolved: That the Monroe Doctrine, as it has been developed by the United States, should be abandoned as part of our foreign policy."

The debate was close and hotly contested at both places.

The Aggie team which defended the affirmative side of the question was composed of Miss Madge Thompson, captain, of Hill City, a junior in home economics; Miss Wilma Burtis of Fredonia, a senior in domestic science; and Miss Louise Ziller of Manhattan, a junior in home economics.

Those who defended the negative side of the question at Washburn were Miss Mary Polson, captain, of Fredonia, a junior in home economics; Miss Fern Roderick of Attica, a junior in home economics; and Miss Lois Witham of Manhattan, a senior in home economics. Dr. J. R. Macarthur, debate coach, and Miss Estella Boot, of the English department, accompanied the girls to Topeka.

The visiting team from Washburn was composed of Miss Avis Clayton, captain, of Hill City, Miss Audrie Myers of Seneca, and Miss Antoinette Dean of Smith Center.

The judges of the debate at Manhattan were Prof. F. A. C. Cowper of the University of Kansas, Prof. E. R. Haret of the Kansas State Normal, and Albert Humphrey of the Westport high school, Kansas City, Mo.

At the close of the contest, the Washburn debaters were entertained by Zeta Kappa Psi, a girls' honorary debating sorority. Miss Eva Townsend of Nickerson acted as toastmistress.

April 28, the Aggie co-ed debaters will meet the Warrensburg (Mo.) Normal girls in a dual debate, which will close the debating season for the college. Twenty-four girls are on the women's debating squads, 18 of whom will have participated in debate. Each of these will receive a debater's "K."

LEWIS RESIGNS TO GO INTO COMMERCIAL WORK

Horticulturist Will Superintend Production for Big Minneapolis Firm-Has Made Brilliant Record in College

horticulture and a graduate of the machines should be given a coat of college, has tendered his resignation heavy oil to protect them from rust. to take effect April 1. He will enter Loose bolts should be tightened or the field of commercial fruit growing, becoming a member of the firm of Goldstein, Yager and Company, Minneapolis, Minn., though he will continue to make his home in Manhattan for the present.

Professor Lewis will have entire charge of the production phase of the business, superintending the setting out of young orchards, the care of old ones, and the production of fruit.

Professor Lewis leaves a brilliant record behind him, especially in his investigative work. His development of methods of fruit storage will, it is said, practically revolutionize storage systems. Men in all parts of the United States have written to him asking for advice on storage questions. Last summer he installed an apple storage plant for an orchardist in financial consideration, the farm work-Michigan, putting into practice theories which he had developed but which farm to make good use of their leisure had never been fully tested. The results have been most encouraging. The fruit has kept almost perfectly and during January there was a variation in temperature of but four de-

Professor Lewis is also a recognized authority on means of combating disease and insect pests. The teachin his spraying laboratory classes are commended most highly.

FARM NEEDS WORKSHOP

BIG SOURCE OF ECONOMY IS FRE-QUENTLY NEGLECTED

Most Machinery May Be Repaired in Leisure Time-Work Will Develop Mechanical Skill of Boys-Equipment Is Inexpensive

WHY WORKSHOP PAYS

A workshop on the farm will enable the farmer to employ his time profitably in seasons when other work is light.

Proper inspection and repair of farm tools and machinery prolong the life of the implements.

A workshop gives the farm boy an incentive to become familiar with the use of tools as well as to develop his mechanical ability.

If he has a workshop a farmer can do most of his repairs and thus save time and money.

A workshop is needed on every farm, according to Edward Grant, foreman of the foundry in the Kansas State Agricultural college.

"One source of economy that has been neglected in the past is the upkeep of farm tools and implements," says Mr. Grant. "It is proverbial that the average American farmer will buy an expensive piece of machinery, use it one season, and then leave it exposed to the elements during the winter. When he wants to use it again it has lost from 10 to 50 per cent of its efficiency.

"The only way to overcome this depreciation is to provide proper housing for all tools and implements. This will protect them from the weather when they are not in use. While the question of housing is important, it is equally important that the defective and broken parts be repaired.

BIG SHOP NOT NEEDED

"A workshop is required to make these repairs. It need not be large, but sufficiently roomy to allow for a work bench, a stove, and a certain amount of floor space where the machinery or tools may be repaired, or taken apart and reassembled.

"The equipment of the workshop need not be elaborate. A small emery grinder and a few of the common tools that a carpenter and a blacksmith require, with some paint and a brush are sufficient. A portable forge and an anvil will prove good investments but are not absolutely necessary.

"There should be system in the workshop. Everything should have a place and everything should be in its place. Every tool or implement should be examined for possible defects. All D. E. Lewis, assistant professor of edge tools and working surfaces of replaced if lost. Every broken part should be repaired or else a new one should be ordered immediately."

KEEP RECORD OF REPAIRS

It is well to have on hand duplicate parts that are known to be easily broken, suggests Mr. Grant. This will save much time, especially in the busy season.

A list of breakable parts of machines ought to be posted in a convenient place in the workshop where it can be seen at a glance. A desk, with necessary writing materials, also has its proper place in a workshop, as an accurate record should be kept of repairs made in the year.

With a proper system of inspection and repairs farm machinery can be made to last longer. Aside from the shop is an incentive to the boys on the hour. With a little supervision boys -12 years old or more-can do much of the repair work.

The work of a farmer does not end with the repair of his tools nor with the reassembling of the machinery, points out Mr. Grant. When the repair work is finished the farmer should test his machinery to see if it ing methods that he has worked out is in perfect working order. Often a slight alteration in a tool or a machine will increase its efficiency.

PRESIDENT GETS HIGHEST OFFICE IN ATHLETIC CONFERENCE

Missouri Valley Votes to Retain Baseball as Intercollegiate Sport-All Games Hereafter Must Be Played on College Grounds

Dr. Henry Jackson Waters, president of the Kansas State Agricultural college, now heads the Missouri Valley Athletic conference. Doctor Waters was elected president of the governing board at the meeting in St. Louis. As the college is the youngest member of the conference, the election comes as a particularly high recognition.

Dean E. W. Stanton of the Iowa State college is vice-president of the board.

Intercollegiate baseball will continue as one of the conference sports, it was voted by the board. This is welcome news to the college, where baseball has always attracted great interest. There was agitation in favor of the abolition of this sport because some of the conference institutions are situated in towns that have strong professional teams and the college game is sometimes played at a financial loss.

THANKSGIVING DAY OPENED

Thanksgiving day football games may hereafter be played provided they are held in the afternoon of the day.

All intercollegiate games must be played on the home field of one of the teams participating. This will not affect the Kansas State Agricultural college, which has not followed the practice of staging its contests in large cities as some of the other institutions occasionally have.

The permanent headquarters of the governing board of the conference are to be in Kansas City, which is a central location, and meetings will be held every year instead of every two

FIND OUT WHAT TRAITS YOUR CHILD INHERITED

Education Should Fit Ancestry-Many Tendencies May Be Checked by Proper Environment

Study the ancestry of your child and determine his traits of heredity so that they may be controlled by his environment. Many inherited tendencies can be modified, if not entirely cured, by the right kind of treatment and properly directed training. The desirable tendencies, again, may be developed.

"It has been accurately observed," says Dr. R. K. Nabours, professor of zoölogy in the Kansas State Agricultural college, "that many mental traits-high temper, dispositions of sweetness and kindness, or a disposi tion to theft, inebriety, immorality, or criminality-run in families, and are consequently qualities of inheritance.

"Such qualities as color of the eye, hair, and skin, are definitely inherited, and this is also true in respect to mental and spiritual traits and susceptibility or immunity from diseases.

"A disposition toward a sweet temper continually thrown under adverse circumstances may be changed to a bad temper, although frequently the worst possible environment has not overcome the tendency; whereas a disposition toward a bad temper, if properly trained, may be even entirely the department of rural service, diviovercome, though everybody knows of exceptions."

Many persons are said to be talented. This is but another way of saying, in most cases, that they have inherited a tendency toward certain lines of intellect. In growing up, their environment has been such as to encourage this tendency. On the other hand, a person may have the reputation of being a despicable character, which in many cases has been an inherited tendency and stimulated by his environment, but which perhaps, with the proper training would have been largely overcome.

Doctor Nabourshas made interesting experiments in heredity with grasshoppers. He finds that in breeding grasshoppers of exactly the same kind, he has obtained as many as nine en- ice department.

WATERS HEADS BOARD tirely different kinds of offspring from these same parents, ranging from white ones to extremely black ones.

"The argument by some persons that dispositions are created or acquired through environment is not well-founded," explains Doctor Nabours, "for obnoxious natures or dispositions have been observed amid the best environments. On the other hand, there have often been children and adults who have been given excellent training and splendid opportunities, and then have committed shameful deeds.

"This fact makes the adopting of children of unknown parentage a dangerous undertaking, as they may have inherited ill traits of character that would be difficult to overcome. Children in orphanages are apt to be of parents of low ideals and morals. The very fact that they are from parents who could not or would not look out for them shows a parentage weak in some ways-with exceptions, of course."

GREAT MUSICIANS ARE PREDICTED FOR WEST

Progress in Agricultural College Is Indication, Says Professor Brown-Instructors Increase Eight Times

Great musicians will be developed in the west as well as the east in the future, if the growth of music in western schools continues at its present the new leaves, there is much less danrate. The west has men and women of ability who need only the opportunity for further development, in the opinion of R. H. Brown, assistant professor of music in the Kansas State Agricul-

The growth of music in the agricultural college is a fair indication of the progress that is being made, points out Mr. Brown. In the early nineties, one instructor was employed; today there are eight. Of these, three are teachers of voice, three of piano, one of stringed instruments, and one of

At first the equipment consisted of two square pianos and two reed or gans. This was before the day of upright pianos. The first instrument of this type purchased by the college is still in use. The music department now has 12 upright and one grand piano, and in all probability will have a pipe organ soon.

Originally the music department was on the second floor of the building that now contains the shops. Later it was in the old chapel, while now it is in the auditorium. The rooms occupied by A. E. Wesbrook, head of the department, and Professor Brown have just been fitted with soundproof walls.

The music department now maintains an orchestra of 40 pieces, a choral society of 300 voices, and glee clubs for both men and women. There were 169 tryouts for the men's glee club, which indicates the interest students take in music.

HEROD COULDN'T COMPETE WITH MODERN IGNORANCE

More Preventable Deaths in Kansas An nually than in King's Massacre

"They say Herod killed a lot of babies; but every year in Kansas, ignorance kills more babies than perished in Herod's slaughter of the innocents." This is part of a circular letter sent out to the ministers of Kansas by Walter Burr, assistant director of sion of extension, the Kansas State Agricultural college. It is to call attention to Baby week, March 4 to 11, which has been announced by the federal children's bureau.

The rural service department of the college is coöperating with the ministers of the state and both are coöperating with the state and national organizations that are promoting the Baby week campaign.

The circular letter offers information about literature, lantern slides, charts, and programs, which can be procured free of charge by ministers who will give addresses or sermons to educate people in baby saving. The interest of ministers is shown by the great number of replies that already have been received by the rural serv-

SERIOUS DISEASE THREATENS KAN-SAS APPLE ORCHARDS

What Materials to Use Will Depend Large ly on Weather Conditions-Bordeaux Mixture Is Necessary in Cool, Damp Season

Kansas farmers are urged to use proper spraying methods for the control of the apple scab. Because weather conditions last season were ideal for the development of scab, serious injury to fruit is anticipated this year unless the next few months are unusually dry and warm.

"In view of the present price of spraying chemicals, as well as the probability of scab injury, the materials to use this spring will depend largely upon weather conditions,' says D. E. Lewis, assistant professor of horticulture in the Kansas State Agricultural college.

"If it is cool and moist at the time of the cluster bud application, Bordeaux mixture should be used to insure freedom from scab. If the weather is warm, with drying winds, lime-sulphur will probably afford sufficient control at less expense.

"The scab winters on the fallen leaves and from this source the new leaves are infected at about the time the cluster buds are pink. If the disease can be prevented from attacking ger of fruit infection. This is because the fruit is infected from the spores which are formed on the young leaves.

THEN USE LIME-SULPHUR

"Since not all infection probably will be prevented by the cluster bud spray, it is best to use lime-sulphur at the petal fall application. These two applications should, if made and applied properly, afford control in this

Since there is little danger of causing injury at the time of the cluster bud application, it is possible to use a somewhat stronger solution of limesulphur than is commonly recommended for the later spraying, in the opinion of Professor Lewis. It probably would be better to use two gallons of lime-sulphur to 50 gallons of water this spring, than to use 11 gallons of lime-sulphur as heretofore.

If Bordeaux mixture is to be applied, the regular 3-4-50 formula should be followed. In either case, arsenate of lead in the ratio of two to four pounds to each 50 gallons should be included for the control of the canker worm and other insects. Two pounds would probably be sufficient except in orchards which have suffered severely in previous years from the canker

WHAT MAKES SPRAYING COUNT

"It cannot be emphasized too frequently that the correct combination of materials and the timeliness and thoroughness of the applications are the secrets of success in spraying,' commented Professor Lewis.

Frequent experiments have proved that Bordeaux mixture is a more effective fungicide than lime-sulphur. While this difference is more marked in the control of blotch and bitter rot, it has been found necessary to use Bordeaux mixture in regions where the apple scab recurs each year.

The Kansas orchardist in the past has had much less trouble in controlling this disease than have the growers in more humid sections, due to the fact that hot weather and drying winds are even more efficient than spray materials in disease control, Professor Lewis declares. On account of the small amount of scab ordinarily present in this climate, the inclination will be to apply lime-sulphur at the time of the cluster bud application. Unless the early months are dry and warm, considerable scab injury is almost certain to occur.

EXTENSION EXPERT WILL TEACH POULTRY RAISING

Sixteen Schools Are Already Scheduled for March and April

conducted between March and October Brown.

KILL SCAB WITH SPRAY by Ross M. Sherwood, specialist in FAMINES DUE TO CASTE poultry, division of extension, Kansas State Agricultural college. Sixteen schools have been scheduled for March and the early part of April.

> A community wishing one of these schools is required to organize a class of not fewer than 12 men and women who must pay a membership fee of not less than 50 cents each. A room and the demonstration material for the school must be provided. Work will begin at 10:30 o'clock in the morning and will close at 3:30 o'clock in the afternoon. Lectures and discussions will be given on the study of breeds, incubation and brooding, housing, egg production, marketing of poultry products, and preparation of poultry products for the table.

GENERAL STAFF OFFICER TO INSPECT CADET CORPS

Major Monroe McFarland Will Visit College April 21 and 22-Elaborate Program to Be Given

The annual inspection of the cadet corps of the Kansas State Agricultural college will be conducted by Major Monroe McFarland, a member of the general staff at Washington, on April 21 and 22.

The afternoon of the twenty-first will be spent in a general inspection of the cadet corps. In the morning of the twenty-second, special features will be given by different companies.

Major McFarland will arrive in Manhattan at noon, April 21, and will be the guest of Lieutenant Mathews during his stay. A military ball will be given by the cadet corps in honor of Major McFarland on the evening after his arrival. Following is a schedule of the inspection:

April 21, 2:30 o'clock p. m., review and inspection of the cadet corps; 3:15 p.m., inspection of the cadet signal company; 3:30 p. m., close order drill by the first battalion, manual of arms and bayonet exercise by company C, extended order drill by company H, inspection of military temporary bridge built by the engineer company; 8:30 p. m., military ball given by the cadet corps in honor of Major McFarland.

April 22, 8 o'clock a. m., advance guard of a battalion by company A; attack by infantry patrol supported by machine gun fire, company G and machine gun platoon; intrenchments by company B; field ovens and incinerators, company E; outpost of a battalion, company D; squad patrolling, company F; inspection of papers and property of the military department.

FILL SPRING EVENINGS WITH WORK AND PLAY

Miss Frances Brown Euggests Entertainment for Farm Homes-Read Good Books Aloud

Winter and early spring evenings the farm pass rapidly when the whole family makes play out of work. Let father and the boys and girls join in doing many of the tasks that mother ordinarily performs, suggests Miss Frances L. Brown, director of home economics, division of extension, Kansas State Agricultural college.

"Tacking comforters should afford real pleasure for the entire family,' says Miss Brown. "Peeling apples for apple butter and for drying-in season-provides enjoyment as well as profitable employment."

Home entertainment may be varied with music and games, points out Miss Brown. A talking machine with good records, including songs and band music, cam be substituted for a musical education. Card games, crokinole, dominoes, and checkers never grow old. Evenings of travel may be carried out with the aid of a projectoscope and postcard views.

Good books should be read aloud. members of the family taking turns in reading. Private theatrical performances may be given by children. Fairy stories may be played without costumes. This will stimulate an interest in reading and be a help in learning the class-

While popping corn and passing ap-Many requests have already been ples and cider may add to the enjoy received for two day extension schools ment of an evening, yet eating between in poultry husbandry which will be meals is not recommended by Miss

ANCIENT CUSTOMS IN INDIA PRE-VENT MODERN FARMING

Graduate Student from Asia Shows How Old Prejudices Cause Shortage of Money-Agriculture Will Always Be Somewhat Limited

Famine in India is attributed more to lack of funds to purchase grain than to lack of rainfall by C. V. Sané, a graduate student from India, who is studying dairying under dry farming conditions, in the Kansas State Agricultural college.

"The reason for lack of funds is deeper than can be observed by those who are not familiar with the conditions of our country," says Mr. Sané. "When one speaks of the economic conditions in India he must take into consideration caste customs, for they are closely connected with the farm practices of the country. If I am a Brahman I cannot raise poultry because it does not conform to my caste etiquette. Not only this, I cannot eat meat of any kind, nor can I indulge in alcoholic drinks. I cannot do the former because it means that I take life or, in other words, commit sin, and I cannot do the latter because alcohol makes one a brute.

"No Hindu can raise cattle for meat purposes, nor can a Mohammedan ea pork. This shows the utter disregard of laws of economy. Measure these prejudices from the standpoint of diversified farming and its detrimental effects are apparent. Here in a nutshell you find the cause of lack of funds in India.

CHANGE NOW IS IMPOSSIBLE

"Our only consolation under the terrible trials of frequent famine is our almost instinctive belief in the justice of the Almighty. We have seen that the prejudice against diversified farming is so strong that any change at this time is not possible.

"As a result of past experience, the government takes some precautions to alleviate suffering. As soon as the conditions become acute people begin to migrate from the villages into the cities in search of work. When this condition becomes more serious, the officials declare the country to be in a state of famine and notices are sent out which instruct to where the relief work will begin. This work consists of building provincial roads or digging reservoirs to be used as a basin for irrigation or for holding drinking water.

"Despite the fact that more than 40,000,000 acres are under irrigation, the sections most susceptible to famine are protected only to the extent of 7 per cent. When the irrigated lands are multiplied, then our farming systems will receive stability and uniformity.

"Owing to the fact that we have only three kinds of soils in India our agriculture will be limited more or less in variety. The climate is another limiting factor in crop production. Now we are raising rice, leguminous crops, millet, wheat, cotton, tobacco, tea, oil seeds, and peanuts. Jute, from which gunny sacks are made, is cultivated only in India."

MIAMI FARM BUREAU OBTAINS OATS FREE FROM WEED SEED

Progressive Organization Accomplishes Valuable Work for its Members

The Miami county farm bureau has been active in securing seed oats for its members. O. C. Hagans, the county agent, reports that five carloads of good seed thus far have been located in Texas by the bureau and shipped into the county. None of this has contained Johnson grass seed. Seed from at least two other cars shipped into the county has been found to contain considerable Johnson grass.

The Santa Cruz demonstration station distributed during the past year to farmers in the municipalities of Laguna outside the Santa Cruz district, 1,675 packages of vegetable seed, 368 gantas of secondary crop seed, 2,000 tomato plants, 800 peppers, 176 pechay, 1,200 cabbage, and 1,600 sweet potato cuttings, besides a list of products furnished to the school garden at Santa Cruz.-Philippine Farmer.

SIXTY TEACHERS WILL GIVE WORK IN SUMMER SESSION

Special Opportunities Will Be Open for Learning Methods of Presenting Agriculture, Home Economics, and Other Subjects in Colleges and Schools

A total of 137 courses, taught by 60 of the strongest professors in the college and experts from other places, will be offered in the summer session of the Kansas State Agricultural college, which will continue from June 15 to July 27. The bulletin of the summer school is now being distributed by Edwin L. Holton, director.

Special opportunities for teachers are offered by the summer session. An important feature will be the work in teaching agriculture. Dr. Layton S. Hawkins, specialist in agriculture in the New York state department of education and a former professor in Cornell university, has been secured to present methods of agricultural education. Doctor Hawkins is a graduate of Amherst college and Cornell university, and is one of the best known leaders in his field in the United States.

A seminar in the teaching of agriculture, intended primarily for college instructors in the subject, superintendents of schools, and principals of high schools, will be directed by Doctor Hawkins; Dr. H. J. Waters, presi-



PROF. EDWIN L. HOLTON

fessor of animal husbandry; O. E. Reed, professor of dairy husbandry; Albert Dickens, professor of horticulture; W. A. Lippincott, professor of poultry husbandry; and H. L. Kent, associate professor of education.

HOW TO TEACH AGRICULTURE

Two courses in methods of teaching agriculture in high schools will also be offered. One of these will be for teachers in high schools that offer only one year of agriculture, and the laboratory equipment will be that of the average high school. Doctor Hawkins and J. W. Zahnley, assistant in agronomy in the college, will teach the course. The other course, which is primarily for teachers of experience in handling agricultural work, will be given by Doctor Hawkins.

Special work likewise will be given in home economics education. Mrs. Ann Gilchrist Strong, professor of household arts in the University of Cincinnati, and Miss Helen H. Halm, assistant professor of home economics education in the college, will be in charge of this work. Mrs. Strong is a leading authority on the methods of teaching home economics. She was formerly connected with Columbia university. She taught in the college last summer and proved exceedingly tained by the Michigan Agricultural popular. Miss Halm is a graduate of college in the destruction of its engithe college and a former teacher of neering building by fire.

normal schools.

The courses in home economics education deal with the place of home economics in secondary education, the organization of the course in schools of various types, including academic, technical, trade, prevocational, and junior or intermediate



MRS. ANN GILCHRIST STRONG

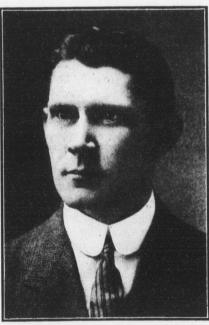
schools. The development of topics relating to nutrition, foods, sanitation, housewifery, home nursing, textiles, clothing, costume design, laundry, house furnishing, and decoration, and the methods of presenting these subjects will be emphasized.

MANY SUBJECTS ARE OFFERED

omy, animal husbandry, dairying, channels that you desire. horticulture, poultry, domestic science, domestic art, applied mechanics, mechanical drawing, manual training, shop practice, botany, chemistry, economics, education, English, entomology, German, history and civics, mathematics, music, athletics and physical education, physics, zoölogy, photography, public speaking, industrial journalism, and printing.

Special addresses will be made by will be made under the leadership of grounds on the college farm and cam-

sor of agronomy; W. A. Cochel, pro- placed in charge. The enrolment last year was 472, and a substantial in-



DR. LAYTON S. HAWKINS

crease is expected this year in view of the fact that more extensive courses are offered than ever before.

A loss of \$200,000 has been sus-

TO OFFER 137 COURSES home economics in secondary and IT'S NO EASY BERTH

NEWSPAPER FIELD IS NOT FOR SLUG-GARD, WARNS EDITOR

Profession of Journalism Is Honorable Calling and Yields Good Rewards-Walter Johnson Tells Students What Makes Good Reporters

"The newspaper field is no place for the dullard or sluggard. If you wish for an easy berth, look elsewhere,' was the advice of Walter A. Johnson, managing editor of the Topeka Daily Capital, in speaking to students in industrial journalism in the Kansas State Agricultural college, Wednes-

"The profession of journalism," said Mr. Johnson, "is a dignified and honorable calling and its pecuniary rewards compare favorably with those of other professions, notwithstanding the common misapprehension that the salaries are pitiably small.

"There are quite as many out-ofthe-elbow lawyers as out-of-the-elbow newspaper men-quite as many who have quit that calling for some line of business in order to make a better living. Given a reasonable degree of talent and fair opportunities, the chance for rising in newspaper work is quite as good as in any other profession.

CHANCE TO MOLD OPINION

"If you have an ambition to help mold public opinion, seek a job on the newspaper that appears to be seeking to do the things you would have done, embrace every opportunity for enlarged service, get the spirit of the organization, and eventually you will Among general subjects to be offered find yourself writing news in a way in the summer session will be agron- that will help direct thought along the

"City administrations, state administrations, national administrations, are made or broken by the news editors and writers of the country-alat the direction of the publishers. This does not mean necessarily that paper always and as many other pathe news is colored, although unhappily that is sometimes the case; it large a fund of general information more often means merely that an administration having adopted a wrong speakers from other states at the course is unable to escape the logical weekly assemblies. Educational trips consequences thereof. Pitiless publicity is the deadliest foe to an unceraccount."

News reporting as practiced in the daily newspaper offices is an institution no older than the daily press itself, declared Mr. Johnson. It has remained unchanged since the estabwriting for the public press except so giving advice. far as the telegraph, the telephone, the typewriter, the linotype, and the perfecting press have made the speedy gathering and dissemination of news a necessity.

CELERITY BECOMES REQUISITE

With the advance in mechanical equipment of newspapers has come the more insistant demand for all the news at the earliest possible moment it is available. In consequence, celerity in the preparation of copy has become the second requisite in news reporting. The first is, always has been, and always will be-accuracy. This is assuming at the outset, qualinose for news-without which the making of a reporter, however well he may be educated, is impossible. Next to celerity comes brevity.

Mr. Johnson gathered from newspaper reporters, city editors, copy paper man.

"I find that nine emphasize accuracy, nine_not the same nine_the importance of making friends, knowing the people of whom you seek news, being a good mixer," said the speaker. "Thirteen mention honesty, reliability, refusal to violate a confidence, except always to take the city editor into one's confidence. Coupled with this general suggestion of honesty in five instances is the admonition, 'Don't fake, don't distort, don't color.'

REPORTER NEEDS INDUSTRY

"Six mention industry, willingness to work, or real love of the work as the prime requisite. Five emphasize the importance of knowing the news sources, and one-a city editor-suggests, almost petulantly, and with reason, the nuisance a reporter can make of himself by constantly running to the desk man with inquiries as to where to obtain certain information, instead of agitating his gray matter and figuring it out for himself.

"Tactfulness and discretion are given high place by seven news writers. Skill in the use of a typewriter is mentioned by five-and it is a primary requisite. A proper sense of proportion is mentioned by five. Importance of a sound foundation in education in the common school studies-even more important than a college education, where the collegian has learned only imperfectly what is taught in the primary and secondary schools-is mentioned by three.

TAKE NOTHING FOR GRANTED

"Three others direct attention to the importance of taking nothing for granted, and one adds wisely, 'and leave nothing to be taken for granted.

"Ability to take and obey orders, possession of a good pair of legs and a disposition to use them tirelessly, good memory, good manners, alertness, keeping office secrets, getting the short stuff, never quoting without perways, of course, with the approval or mission, cheerfulness, friendliness and sympathy, sincerity, reading one's own pers as possible, possession of as as obtainable, careful revision of copy, sobriety, punctuality, and possession of a sense of humor are other qualifications receiving mention."

Most successful writers for farm pubtrained men to the experimental tain or evasive policy on the part of a lications today have technical trainpublic official or an administration. ing, it was pointed out. The farm The double leaded editorial may have writer must keep the farm viewpoint; The summer session has had rapid lost some of its force, but the newspa- the ability to see things through the dent of the college; L. E. Call, profes- growth since Professor Holton was per is none the less powerful on that eyes of the man who is on the soil. He must understand the hopes, ideas and beliefs of the average man of the country and be able to write in a way that this average man can understand. He must be able to discuss farm problems in common-sense, every-day Englishment of the first principles of lish, and especially must be avoid

NEWSPAPER IDEALS HAVE CHANGED

Mr. Johnson addressed also the student body of the college at the general assembly. Speaking on "The Newspaper and the School," he gave interesting reminiscences of his own student days and traced the changes that have taken place in journalism since that time. He referred to the newspaper as the people's university and showed how it had become a powerful educational force.

"Fifteen years ago," said the speaker, "another young reporter and I covered an important murder trial. We wrote daily from seven to 12 colfied Mr. Johnson, the possession by umns of copy. Today, a newspaper the candidate of a news sense, or a that would print seven columns a day about a murder case would be excluded from intelligent homes.

"In those days there were two great journalistic interests-crime and politics. Newspapers, today, on the other readers and others having to do with hand, feature all the interests of the the reporter's copy, opinions as to public to which they appeal, and they the qualifications of the good news- have a keen sense of responsibility as to their services to the public."

ROUND-UP NEXT MONTH

RESULTS OF FEEDING TESTS WILL BE SHOWN AT HAYS

Annual Event Will Atttract Many Kansas Stockmen-Experiments Are Most Extensive of Their Kind in Progress in United States

The most extensive experimental work in progress in the United States with beef breeding cattle will be presented to farmers and stockmen at the third annual roond-up to be held at the Fort Hays Branch Agricultural Experiment station Friday, April 7. There has been a large attendance at each of the previous meetings, but a still larger crowd is expected this

Experts in charge of the work will present the results obtained from the feeding of 100 high grade Hereford cows, 100 high grade Hereford calves and 30 mules. The data will be available in such a form as to be most useful to men handling breeding live stock in western Kansas and in other parts of the country which are similar in climate and rainfall.

The stock has been handled in the most practical manner. The round-up is held not only in order to present to the stockmen the results secured from the use of different feeds but also in order to show the actual condition of the animals at the close of the winter feeding period.

The purpose of the cattle experiments is to demonstrate the most profitable methods of beef production in the short grass country.

NEW SUPERINTENDENT ON JOB

The new superintendent of the Hays station, Charles R. Weeks, will be present at the meeting. Mr. Weeks was in Manhattan this week on his way to Hays. He made a most favorable impression on the college people.

North Carolina newspapers speak highly of Professor Weeks and express their regret at his departure for Kansas. The Rock Hill Evening Herald says in the course of a long article on Mr. Weeks' work:

"Sincecoming to Winthrop Professor Weeks as head of the state farm has put that upon a business basis, the farm netting a profit each year. The dairy equipment has been added to, a poultry farm started, and other modern methods adopted. Recently the college purchased additional land because of the increasing need for more vegetables for the college dining room, more meat, and more dairy products."

BRYAN WILL SPEAK TO STUDENTS OF COLLEGE

Commoner to Deliver Address Here Tuesday Afternoon-Classes Will Be Dismissed

William Jennings Bryan will speak before the students of the Kansas State Agricultural college from 1:30 to 2:30 o'clock Tuesday afternoon, March 21. Mr. Bryan will arrive in Manhattan at 12:40 o'clock and will leave at 3:30. A program is being arranged by the music department. Classes will be dismissed during the time that Mr. Bryan is to speak.

KANSAS COUNTIES WILL PUT UP MANY BRIDGES

Much Work Is Planned for Near Future in Various Parts of State

Extensive bridge work is being planned in Kansas in the near future, according to W. S. Gearhart, state engineer. Wabaunsee county will build 41 concrete bridges and culverts. Contracts for 10 bridges in Clay county and four in Mitchell county will be let about April 1. At the same time contract will be let for a concrete bridge across the Arkansas river at Lakin. On March 21 a contract will be awarded for the erection of a concrete bridge at Sharon Springs.

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A	DA	RICE, '95,	M. S. '12 Alumni	Editor

Except for contributions from officers of the college and members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

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SATURDAY, MARCH 18, 1916

Theaters used to employ chemicals to clean the houses; now they use vaudeville.

No wonder Villa's soldiers are loyal to him. He is said to have made 60 per cent of them officers.

A Denver paper wants to know dit. Why not send out a call for him in Kansas City?

A REAL ASSET

To A. E. Wesbrook, professor of music, too cordial praise cannot be given for the brilliant concert presented under his direction Monday evening. To realize the effect of but a few months of his training on the chorus, one need only compare the that the farmer's boy, facing this production with the musical affairs ordinarily given in colleges, even where music has long been recognized as an important part of the curricu-

The institution will look forward with anticipation to the further development of Professor Wesbrook's plans in disposing of its refuse which is for making music a vital factor in similar in many ways to that of community life. His work is certain thousands of farmers in the United to be an important asset to the college and the state.

SAVING WASTE PRODUCTS

manufacturer that finds the best way prevent loss is the money maker.

waste-such as hoofs, bones, hair, horns, bristles, fat, intestines, and itable fertilizer. blood is now converted into glue, soap, oil, glycerine, knife handles, practically every other state there are combs, buttons, and a multitude of still many farmers who spend money to other articles. Not only in the packing industry, but in almost every other New York city has been doing. Some line of manufacturing, every possible of these farmers burn each year piles of waste product is utilized.

in the fields. Many farmers fail to than \$900,000 a year on account of its but it can be used advantageously to fertilizer value of the tons of waste supplement other feeds. Products are lost through poor storage facilities. way to make money.

human life. It is only within recent | manure, and other waste matter become | held April 24.

realized its value in a larger sensethe sense that recognizes play as an absolute need in the life of every individual. The steadily increasing number of social workers and civic reformers are doing much to solve the play problem in the cities and larger towns, where by organized methods they are placing opportunities for recreation within reach of the poorest classes. Unfortunately the effects of these movements have been rarely felt in the rural districts.

The average farmer, although he is getting rich a great deal faster than his city brother, feels that in order to make ends meet he must work all six days of the week and sometimes on Sunday. Then he wonders why it is so difficult to keep the boys and girls on the farm.

The Saturday afternoon holiday has been suggested and tried in some of the more progressive rural communities. Its object has been to bring the people of the community together at a common meeting place for the purpose of physical and mental recreation, to encourage athletic sports for the young and social discussion for the adult. In every instance such a movement is met with the heartiest enthusiasm by the younger generation, but often fizzles out for the lack of proper coöpera tion on the part of their elders. Instead of joining the boys and girls in their holiday, they are more apt to remain at home and grudgingly give their consent to what they consider a waste of valuable time.

The harvest rush usually spells death to the farmer's holiday. The harvest rush is to the farmer what a panic on the market is to the stock broker, or the world series to a baseball fan; the mere suggestion of a holwhat has become of the old time ban- iday would probably cause him to throw a fit. When the excitement is over, however, the broker goes to the seashore to recuperate, the baseball fan soothes his ruffled nerves with cooling drinks and looses himself in the columns of the sporting page. Not so with the farmer; not for one minute does he relax, but with feverish haste he begins to prepare for the next year's crop. Is it any wonder monotonous routine day after day, year in and year out, looks toward the city as an avenue of escape?

PROFIT FROM WASTE

New York city reports an experience States. In July, 1913, a garbage company asked the city to pay \$130,000 a year to remove its refuse. Only recently the same company offered to To save waste products is to in- pay the city \$1 a year for the privilege crease profits. In agriculture as in of removing the refuse, but a new cormanufacturing there are many waste poration put in a bid for \$900,000 a products. Accordingly the farmer or year for the waste matter. The men behind the \$900,000 bid didn't make to use the waste products and thus the big offer because of their desire to help keep New York city free of the The packing houses allow nothing contaminating influence of accumulato go to waste. In a large packing tions of garbage and other waste matplant, much that formerly went to ter, but because they saw opportunities for converting this material into prof-

In Kansas, Missouri, Oklahoma and rid themselves of waste matter just as straw. In some cases they are also On the farm there are, as a matter careless in disposing of manure. While of fact, many wastes. Grain is wasted New York city has been losing more use the straw or stover. These can all failure to make the most scientific use be utilized. Cattle, sheep, and hogs of its refuse, farmers have been dropwill eat much of this material. It ping many times that amount because alone is not sufficient to feed the stock, of their lack of appreciation of the matter on their farms.

New York city furnishes a concrete There are numerous other wastes that illustration of what every urban and can be eliminated. To save money by rural community in the United States in the south.—The Progressive Farmer. judicious management is the surest can do with refuse. Thus far this country has not availed itself of the returns possible from refuse because A HALF HOLIDAY FOR THE FARM its virgin soil did not show farmers it In the cities and more thickly settled needed plant food and because of a communities play has always been lack of intelligent appreciation of the recognized as an important feature of value of waste matter. When garbage,

years, however, that people have an asset generally instead of a liability, America will make more rapid progress in adding to its wealth .-Drovers Telegram.

IN THE OLD DAYS

that dryfarming was simply a theory that some young upstarts were wanting to foist upon the people, and that idea prevailed so strongly that men who raised crops without irrigation botanists. were ridiculed. It is only a very few years ago that a certain man in the richer this week by the gift of

H. S. Willard, '89, has returned from Kansas City, where he attended the medical university, and is again studying medicine under Doctor Robinson.

There are now four of our students In the beginning the idea prevailed in the United States department of agriculture: C. L. Marlatt, '85, entomologist; and D. G. Fairchild, '88; W. T. Swingle, '90; and Miss Vay Varney, postgraduate in 1890, all

The Entomological collections are

WHERE MY BOOKS GO

William Butler Yeats All the words that I utter, And all the words that I write, Must spread out their wings untiring, And never rest in their flight,

Till they come where your sad, sad heart is,

And sing to you in the night, Beyond where the waters are moving, Storm-darkened or starry bright.

SUNFLOWERS

The reason Hi Shelby is on the water wagon is that Mrs. Shelby is boss.

If it were not for mistaken identities, twins, and dreams, what would the poor scenario writers do?

A SCREAM

If brevity's The soul of wit, Susanna's skirt's A funny skit.

An expert advises us to find out what traits our children inherited. Does he not know that every parent is fully satisfied that the children get all their good traits from one side of the family tree and all the bad ones from the other?

Mrs. Gadding A. Bout is slowly recovering from the quarantine made necessary by the thoughtless way in which her children had the measles. Children in this day and age seem to be growing less and less respectful of the rights and privileges of their mothers.

TO LUCILE

Lucile, If I could steal Your sweetest thoughts, if you'd reveal What you conceal, I'd kneel,

And such a spiel From my exhausted tongue would reel, That you'd repeal

Your "No," Lucile. Alas! It is a bum appeal!

Lucile, I feel

My blood congeal-'Tis a rotten deal. Don't squeal On me, Lucile.

REMEMBER THE COMMUNITY

Almost every day we read of some city man who has died and left something for public use-something for some school, church, library, park, or something of the sort. There are not so many people of wealth in the country, of course, but because the country dweller cannot leave much is no excuse for leaving nothing for public use. A man who has even modest means, in fact, should be ashamed to die without leaving something to enrich the community—a gift for school or Sunday school library; a flag for the schoolhouse or a carpet for the church; a fund to buy school books for fatherless children; a piano for church or school, or funds for adding an auditorium to the local school to serve as a community center. Or it year by nearly 30 acres leased from may be land for a playground or school farm.

> We should like to see a thousand farmers remember their communities this year. It's a good example to set in your neighborhood, even if you are too poor to afford anything more than \$5 to buy a flag for the schoolhouse.

Let's remember our communities in our wills.—The Progressive Farmer.

ARE YOU AN ADVERTISER?

Mending dolls and toys for the children and keeping baby carriages for the use of those country patrons who bring their children along into town were two forms of successful advertising mentioned by Missouri hardware dealers in their state convention at St. Louis recently. But advertising in the home and county papers played a large part in the discussion of business

When advertising reaches the stage where even the hardware merchants make the discussion of it the feature of a several days' program, it is time for the non-advertiser to take a personal inventory and find out what's wrong with him.—University Missourian.

Literature and the Newspaper

John P. Young

This is a country in which libraries, large and small, abound, and there are probably more collections of books in private ownership, not dignified by the title of library, but which, numerically considered, might be so regarded, than the whole of Europe contains. Nevertheless, and notwithstanding the fact that the output of "best sellers" is enormous, and that the sale of standard works is on a scale which makes the demand for such publications by other peoples seem small, it is true that the chief mental pabulum of the American people is the contents of their newspapers. And it may be urged, in response to the adverse criticism this sometimes calls forth, that the best products of modern literature sooner or later, in some form or other, find their way into the Sunday magazine, which is at once an anthology, a repository of knowledge, a compendium of history, and often history itself. It is the fashion to speak lightly of the Sunday magazine because it is not wholly made up of contributions which a fastidious literary taste could approve, and it is said that a cultivated person can find in its columns only a small proportion of matter really worth while, but if that is a defect it is one it shares in common with the greatest libraries whose shelves harbor a hundred books that are never read to one that is.

The popular judgment concerning the value of the Sunday magazine has long since received the indorsement of the most gifted in the ranks of authorship. There is no writer of consequence today unappreciative of the opportunity it affords to get his work before the people, or who disdains the rewards it offers. It has lifted the man of letters out of the slough of despond and given him a chance in the struggle for existence. It has eliminated Grub street and has enabled genius to market its literary wares at a figure somewhat commensurate with their value. The author of merit no longer burns the midnight oil in a garret; oftener than otherwise he revels in the blaze of electricity and lives in marble halls, because he is able to reach a world of readers through the Sunday magazine.

my section, Mr. D. Broadhead, was about a thousand excellent specimens farming methods! He was actually Strickler of the third year class. put in jail until his bondsmen could release him! To show you the progthat was in question at that time, and furthermore, during the last year, a tract of land very near to this tract, produced 67 bushels of Turkey red wheat to the acre, and that in a section where the rainfall is limited to 13.4 inches per annum and during two years of that crop it did not average quite that amount.—J. W. Paxman in the Agricultural Review.

BRAIN FOOD

Keep preaching it, that every one horse farmer ought to take \$5 worth of papers, every two horse farmer \$10 worth, every three horse farmer \$15 worth. Southern farmers spend \$50,-000,000 a year to fertilize their lands. If we'd spend about \$1,000,000 more a year to fertilize our brains, would profits likely be doubled? And have you ever noticed it that the man who is "too poor to take a paper" is not too poor to buy whisky to stunt what God-given brain he has? Half the money the south has spent for whisky would give a library and a perpetual newspaper subscription to every home

A QUARTER CENTURY AGO Items from The Industrialist of March 21, 1891 Another carload of lumber has been

Preparations are already being made for the Ionian exhibition, to be

received for the carpenter shop.

served with a subpoena to answer for of insects, pinned or in alcohol, from perjury because he testified in court New Mexico and New York, the colthat he could raise crops under dry- lection and contribution of L. S. There is yet room for improvement

in some of the city walks leading to ress that has been made, in the year the college, notably on the two blocks 1911 that man produced 36.47 bushels on Juliette avenue, between Humboldt of wheat per acre upon that very land and Osage streets. These walks are worn out, the stones missing in many places, and those that compose the remnant almost buried beneath the

The college farm is increased this the Williston place and adjoining the north line of the farm. This addition to the tillable land is made necessary by the extensive experiments in progress. Last year there were 3,600 plots under observation. This year there will be even more.

A quartet of students suffered temporary suspension this week. The simple facts are these: The rules require that all public exercises be submitted for the approval of the standing committee of the faculty on public exercises. The quartet submitted for the Webster annual exhibition a song which the committee rejected as containing unpleasant allusions. The quartet concluded among themselves that, although the song was excluded from the program, they might use their own judgment if it did not appear upon the printed order of exercises, and gave the song with slight modifications in response to an expected encore. The suspension until a satisfactory apology should be made for disrespect to the committee of the faculty was the result. Due apology was made and accepted.

Miss Mary Courter, '15, visited friends in Manhattan last week.

Miss Mary Lemon, '14, is teaching home economics in the Plainville high

Ernest Baird, '15, is taking graduate work in the University of Illinois at Urbana.

Miss Olive Gage, '14, is teaching domestic science and physical training at Manning, Ia.

Miss May Gonterman, '13, is teaching domestic science and art in the Goodland (Ida.) schools.

Miss Mabel Davison, '10, has completed her third year of teaching home economics at Norman, Okla.

Smith Faris, '06, has moved to West Allis, Wis., where he is in the employ of the Allis-Chalmers company.

G. A. Hopp, '15, recently formed a partnership with J. P. Rickard. They expect to engage in municipal engineering work.

Mrs. E. F. Kubin, formerly Miss Emma Lee, '10, underwent an operation for appendicitis recently. She is recovering satisfactorily.

Miss Kathryn Adams, '14, is visiting in Manhattan this week. Miss Adams teaches domestic science and art in the Ellsworth high school.

M. W. Parrish, a former civil engineering student, was at the college Saturday. He is at present employed by the Illinois highway commission.

Miss Adah Lewis, '07, has completed her second year of successful work as teacher in the home economics division in the state normal school at Springfield, Mo.

Miss Vida Harris, '14, is teaching in the Tillison mission, a Methodist school for negroes at Austin, Tex. She writes that the thermometer is registering 99 degrees in the shade.

A copy of a bulletin of the Florida Agricultural Experiment station, on "Japanese Cane," written by Professor John M. Scott, '03, has been received. The bulletin is a neatly printed and well illustrated pamphlet of 24 pages-a credit to its editor.

John Gingery, '10, assistant professor of veterinary medicine in the University of Missouri, and Mrs. Mary (Austin) Gingery, a former student of the Kansas State Agricultural college, are visiting the latter's parents, Mr. and Mrs. Austin of Manhattan.

J. D. McCallum, '14, who has charge of the work in agriculture in the Lawrence high school, is undertaking with his high school pupils home project work in poultry, home gardening and landscape work on the home grounds. He reports great interest in the work.

Miss Emma S. Irving, '10, is working in a children's home school, maintained by the Baptist mission at Capez, Panay, P. I. She expects later to enter hospital work. She writes that she has met only one former college student here, though there are a number in the islands.

DEATHS

HENRY AVERY

H. W. Avery, '90 has the sympathy of all alumni and college friends in the loss of his father, Henry Avery of Wakefield, whe died March 11 after a protracted illness. He will be remembered by the older alumni as a farmer of unusual ability and a Kansan of the highest type.

Mr. Avery came to Kansas in 1861 and freighted with an ox team from Leavenworth to Denver for nearly two years. Early in 1863 he enlisted with Company L, eleventh Kansas regiment, and served for two years in the army, doing principally outpost duty and Indian scout work. After his discharge from the army, he was married to Miss Orpha Farman of Westfield, and settled immediately on his farm Plates will cost \$1.75 each and resnear Wakefield.

1876 he purchased and brought to 10.

Kansas the first registered Percheron horses, and for many years the Avery farm was the most extensive Percheron breeding farm in the west. His fair dealing did much to increase the popularity of heavy horses in Kansas.

BIRTHS

Born, to Mr. and Mrs. Warren E. Watkins, '06, Iola, on March 4, a daughter, Lucile.

Born, to Lester A. Ramsey, '06, and Mrs. Ruth (Neiman) Ramsey, '06, 219 East Seventeenth street, Brooklyn, N. Y., on March 5, a son, Lloyd Albert.

MARRIAGES

ALEXANDER-GEORGE

Miss Kate Alexander, '06, and Mr. Howard George were married February 26 at the home of the bride's mother, Mrs. J. M. Alexander. Mr. and Mrs. George are at home in Mound Valley.

KANSAS CITY REUNION

To the Editor of THE INDUSTRIALIST: The children of the Kansas City territory are to assemble for our annual

'hullabaloo'' Friday night, April 7. Roast turkey, mashed potatoes, sifted peas, head lettuce, celery, olives, fruit cocktail, consommé, ice cream, cake, coffee, bread and butter, with Missouri river sifted and laundered water on ice, is the prospective temp-

It will require \$1.25 to allow your feet to project to your neighbor's feet under the table. The Coates house gets one dollar, and the writer hereof signs his check, no doubt, for all the deficit. But, rats, what is a "hullabaloo" for, if not to leave the secretary in a dark, deep, dismal, dank hole? So, children, take notice all of you, and for heaven's sake, some of you jar loose this year and meet with us. It's worth all its costs. Put your name in the pot early. Be a "sport"

this year—not a "piker." Come on with your reservations.

Yours for your money, H. C. RUSHMORE, '79,

Secretary

308 Lawn, Kansas City, Mo.

APPLYING MODERN METHODS

The new county high school building at Meade is attracting wide attention. Gymnasium and auditorium are combined, making a room with a seating capacity of 700 and available for basket ball games, parties, and other entertainments.

A feature of the work of the school is the cafeteria which is supervised by Miss Nellie Stevenson, formerly student of the Kansas State Agricultural college. The cafeteria opened in September and since then has been giving the country boys and girls and the teachers of the school three wholesome meals six days in the week. Besides this it furnishes employment to a number of the boys and girls who could not attend school otherwise. Two boys from the country pay their board and room by furnishing milk from three cows which have been lent from the herd at home. Eight domestic science girls do all the cooking, and the noon lunch is served to the grade pupils as well as the high school students.

The building in which the cafeteria is located has been transformed into a Teachers' Home. Three young women teachers in addition to Miss Stevenson have their rooms on the second floor and the place has every indication of being a real home. Miss Stevenson says the school board expects to purchase the building which is now rented, and will make the

scheme a permanent one. EASTERN REUNION

The annual reunion of the Kansas State Agricultural College Eastern Alumni association will be held at the Prince George hotel, 14 East Twentyeighth street, New York city, at 6:30 o'clock Saturday evening, April 15. marked all its singing. A unique program is being arranged, and a large attendance is expected. ervations should be made with Mr. Avery was always an enthusi- Donald Ross, 340 West Nineteenth credit, according to Professor Wes-

TRIUMPH FOR MUSICIANS

MAGNIFICENT PRODUCTION IS GIVEN BY COLLEGE DEPARTMENT

Mendelssohn's "Elijah" Is Sung by Choral Society Augmented by Out-of-Town Talent-Concert by Visiting Soloists Proves Attractive Feature

Mendelssohn's "Elijah"-probably the most magnificent musical production ever attempted in the history of the Kansas State Agricultural college -was presented with great success Monday night in the college auditorium before an audience of 1,200. The Choral society of nearly 300 persons, under the direction of A. E. Wesbrook, professor of music, took part in the oratorio. Four soloists from Chicago, 75 singers from Clay Center, and the college orchestra of 38 pieces aided in the performance.

A special platform was constructed to accommodate the assisting orchestra. A short concert by the four visiting soloists immediately preceded the oratorio.

Miss Hazel Huntley, contralto, received great applause for each of her three numbers. Perhaps the most popular selection was "I Came With Song," by LaForge. Miss Huntley has a rich, sympathetic voice and a pleasing personality. Every tone has depth and color. The audience repeatedly called for encores which never came because of lack of time.

VARIED PROGRAM PLEASES AUDIENCE

C. E. Lutton, baritone, won a place in the hearts of his hearers with his two songs, "Zummerzetshire" and "A Short Cut." Mr. Lutton sings with vivacity and intelligence. He knows how to give the jocular touch to compositions intended to suggest the naïve folk manner. Later, he displayed a wonderful versatility in his ability to assume the more serious parts called for in the part of Elijah. All his work was characterized by surprising clearness in enunciation. Authority and power also entered fully into every one of his renditions.

Seldom is there found a voice of the brilliancy, power, and finish of Mrs. Ethel Geistweit Benedict, dramatic soprano, who favored her listeners with three songs, "A Plaint," "Cradle Song," and "A Burst of Melody." Intense feeling was displayed in each of her presentations.

"If You Would Love Me," sung by Mr. Worthe Faulkner, tenor, achieved long applause. Mr. Faulkner is an artist of exceptional ability. He has a voice of wonderful range and volume but it is his perfect control and his power to attain the largest results from it that mark him as the musician bran mash in destroying sow bugs, he really is. At times, he would hold and in this he says: his hearers spellbound by sheer magnificence of interpretation, only to periment station greenhouse where the charm them the next moment by tender department of botany was carrying on sweetness and lightness of tone.

ORATORIO IS REAL DELIGHT

The audience discovered its best likings in the oratorio itself in the beautiful tenor solo, "If With All Your Hearts," the soprano solo, "Hear Ye, did not prove effective. The poisoned Israel," and "It is Enough." The last song was rendered by Mr. Lutton, with a well done 'cello obligato.' Miss Clare Biddison, of the department of music, clearly and sweetly sang the part of the youth.

The biggest triumph of the evening was "Cast Thy Burden," sung by the visiting quartet and accompanied by the harp and solo violin. Sweetness, delicacy, balance, and sympathy best describe the impression it made.

The large chorus was anything but unwieldy in its response to the many requirements of the oratorio. Good as it was at the time of the Christmas concert, a great improvement since then was discernable. Volume, rhythm, unity, abandon, life, and intensity were evidenced in the work of the chorus. Sharpness of articulation

Altogether, the performance is regarded as the best affair of its kind ever given under the auspices of the college music department. Much the diligence with which it trained. ally saves something."

NEW ALUMNI EDITOR

Miss Ada Rice, '95, M. S. '12, has become alumni editor of THE KANSAS INDUSTRIALIST. Miss Rice has been a member of the English department of the college for some years and is now assistant professor and assistant principal of the school of agriculture. She knows personally a large number of alumni of the institution, and is prominent in alumni affairs. She is now secretary of the Alumni association, for which she is performing highly efficient service. Alumni items may be sent to Miss Rice for publication.

the evening, deserves great credit for the part it had in giving completeness to the performance.

"I am well pleased with the presentation of 'Elijah,' says Professor Wesbrook. "The splendid spirit of those who took part did much to make it a success. The student body is learning to sing. In six years from now, I hope it will be able to do even better."

A reception for the Chicago soloists was held directly following "Elijah" at the home of Mrs. E. L. Askren.

The Tuesday morning chapel program was furnished by the visiting soloists. W. T. B.

COLLEGE ENTOMOLOGISTS IN SCIENTIFIC JOURNAL

Local Professors Contribute Extensively to Prominent Publication-Editorial Commends Dean

Contributions from members of the entomology department of the Kansas State Agricultural college occupy a large part of the current number of the Journal of Economic Entomology. This is the official organ of the American Association of Economic Entomologists. Among the papers by professors in the college are "A Preliminary Report on the Life Economy of Solenopsis Molesta Say," by J. W. McColloch and William P. Hayes; "A Study of the Life History of the Maize Bill Bug," by William P. Hayes; "Life History and Habits of Two Nematodes Parasitic on Insects," by Dr. J. H. Merrill; "The Hessian Fly Train," by George A. Dean.

Professor Dean contributes also a note on the effectiveness of poison

"In one of the sections of the explant breeding experiments, the alfalfa and clover plants were seriously injured by sow bugs. Some of the plants were almost completely destroyed. Sliced potatoes poisoned with Paris green were first tried but bran mash flavored with orange prepared in the same manner that has been recommended on several oceasions by the Kansas station in the control of grasshoppers, army worms, and cutworms was then tried, and one application, which simply consisted in scattering a small amount of the mash in the evening about the base of the plants, killed practically all the sow bugs."

Prof. H. A. Gossard of Wooster, Ohio, writes on "County Cooperation to Reduce Hessian Fly Injury," and speaks in high commendation of information obtained by him from Professor Dean and from Kansas county agents and farmers.

The Journal of Economic Entomology comments editorially on the work of Professors Dean and Gossard "Entomology," it says, "becomes economic in proportion to the saving effected. The account of the Hessian fly train and the discussion of county cooperation against this pest are both astic believer in good live stock. In street, New York, not later than April brook, should be given the chorus for nomic entomology - a type that actu- 13 cents in Wisconsin cheese factories.

PLANT SWEET PEAS NOW

THEY ARE EASY TO GROW IF YOU START RIGHT

Get Good Seed and Prepare Soil Carefully, Advises Landscape Gardener-Attractiveness Will Be Gained by **Keeping Varieties Separate**

Planting time for sweet peas is here. This flower may be grown easily if care is taken in the selection of the seed and the preparation of the soil, states M. F. Ahearn, professor of landscape gardening in the Kansas State Agricultural college.

"If sweet peas are planted late, germination may be hastened by soaking the seeds in warm water before planting," says this authority. "Nearly everyone now plants sweet peas by what is called the trench method. The trenches should be from six to eight The orchestra, too, under the leader- inches deep and a foot wide. The botship of R. H. Brown, assistant pro- tom of the trench should be turned. fessor of music and concert master of and well rotted manure worked into it. Firm the soil. Plant the seeds in the bottom of the trench in two rows, six inches apart, one seed to an inch in the row.",

> The pit should be left open until the plants appear and filled gradually as they grow. This encourages the development of long roots and gives the plants the ability to withstand the hot summer months.

PROTECT PLANTS FROM COLD

If the weather is cold when plants first appear, the pit should be partly filled with dry leaves to protect the tender plants until warm weather arrives. Thin the plants to a distance of three inches.

A four to six foot trellis of wire netting should be provided, cross bars being nailed between the uprights to support the netting. If this is not done, the netting will sag, causing injury to the vines because of the play allowed, as well as producing an unsightly appearance. The tips of the vines should be clipped when they attain a height of six feet. The more flowers picked, the more will follow. If pods are allowed to set, the flowering will soon end.

WATER VINES THOROUGHLY

Watering should be thorough. Frequent light waterings are not desirable. The plants may be helped by spraying the vines with water in the evenings of very hot days.

An application of soapsuds will aid n destroying insect pests.

For convenience and beauty, varieties should not be mixed. The following are some of the best varieties: Dorothy Eckford, white; Mont Blanc, white; bridesmaid, pink; Black Knight, brownish purple; Henry Eckford, orange; King Edward VII., scarlet; Othello, dark brown and chocolate; Lady Grisel Hamilton, lavender; Mrs. Walter Wright, mauve; Miss Millie Maslin, maroon; Helen Pierce, white and blue; Rose du Barri, carminerose and orange; Florence Nightingale, purple; and the lately developed Spencer varieties. The last named have frilled flowers, with wavy, corrugated petals. They are a large type and are coming to be exceedingly popular.

STOCKMEN FROM NORTHWEST KANSAS TO HOLD CONFERENCE

Demonstrations, Lectures, and Practice in Judging Will Make up Program

Stockmen and farmers of northwest Kansas are planning to attend the live stock conference to be held at Colby March 21 and 22. The conference will be largely in the nature of a live stock judging school. Horses, beef cattle, dairy cattle, and sheep judging demonstrations will be given. A demonstration car of live stock from the agricultural college will be furnished for the judging classes.

Lectures on the live stock and farming problems of northwest Kansas also will be given. Influential farmers will preside at each session and prominent live stock farmers will furnish a considerable part of the program.

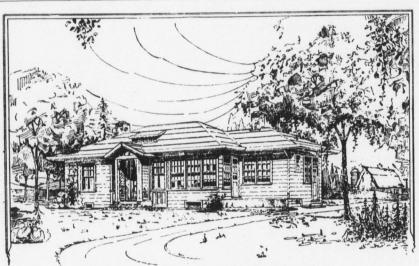
The cost of manufacturing a pound striking examples of applied or eco- of American cheese ranges from 11 to Farm and Fireside.

MODERN BUNGALOW WILL FIT KANSAS CONDITIONS

PROF. W. A. ETHERTON PLANS HOUSE TO HARMONIZE WITH MID-DLE WEST LANDSCAPE-TALL BUILDINGS DON'T INDI-CATE PROSPERITY, SAYS ARCHITECT

This is the bungalow for you, Mr. | entrance will most commonly be used, and Mrs. Kansan. It just fits Kansas because of being nearer the yard drive conditions, for which it was designed and opening into the most frequently by W. A. Etherton, professor of rural used portion of the house. The other architecture in the agriculture college. door would seldom be opened for this The low, sloping roof and the pro- purpose. If used, even infrequently nounced horizontal lines, Mr. Etherton as the public entrance, it would interpoints out, harmonize well with the fere seriously with the usefulness of undulating effect of the prairies and the best end of the living room. The the distant, unbroken horizon.

door is included for those who demand "There is, moreover, in buildings a central entrance and a more attrac-



HOW THE KANSAS BUNGALOW WILL LOOK

that nestle close to the ground," com- tive exterior than would obtain withments Mr. Etherton, "a feeling of se- out it and the gabled porch and the curity against the wind that does not dormer above it. There is no fireplace obtain in houses of the elevator type. in the living room. The house is to This comfort of mind appears, how- be heated by a furnace and the space ever, to be sacrificed in many in- given to the fireplace in the little plan stances because of a false notion that is here occupied by the china closet tall buildings indicate prosperity. and double doors to the porch. These Kansas needs low buildings. There is double doors are to be wide enough plenty of room on every farm for for the dining table to be moved easily broad foundations and nothing to through the opening. compel tall buildings, as in the cities. KITCHEN PLANNED FOR CONVENIENCE The farm owner who fails to appreciate this fact, fails in an opportunity that is inherently his own."

The bungalow plan is an enlargement of the one published in THE IN-DUSTRIALIST two weeks ago. It is one of a series of single storied farmhouses that have the living room in the middle of the house and extending through it from south to north. It is simple in outline, but more irregular than the house previously discussed. It was not designed with the same regard for economy that governed the little plan and it is proportionately more expensive. It will cost, for instance, at least twice as much, or about \$2,000, though it is only a fourth larger in first floor area. In addition to having larger rooms and a larger porch, however, it has also a completely equipped bathroom, a washroom, a pantry, and a large basement. The basement may contain a store room, a laundry, a furnace room, a fuel room, and a vegetable cellar. It may have, also and at less expense, a storm cave quite as efficient in every respect as one built away from the house.

AMPLE VENTILATION IS PROVIDED

The relative arrangement of the living rooms and the porch is the same in the two plans and many of the advantages that were enumerated for the smaller house obtain also for this one.

There are, however, additional advantages for the plan shown here. The bedrooms are larger. They have a bathroom between them. They may be used independently or en suite and with more privacy than the smaller plan affords. Two doors and a small passageway separate each bedroom and the bathroom from the living room. When used en suite the open doors and the windows afford excellent ventilation. The scuttle, or manhole, in the ceiling of the passageway affords another means of ventilation.

The living room has been enlarged for this plan one and a half feet in width and three feet in length. It has one less door on the west side, but an extra entrance door in the south end the most inexpensive and convenient care for and to keep in order. Being puller. The different sizes cost from which may well be omitted. The porch devices consists of an ash can in the screened, it will obviate the need of \$75 to \$150,

The kitchen shown here is planned for convenience in serving the dining table whether it is in the living room, on the porch, or in the kitchen. The work shelf of the china closet is a serving table during the meals and a place for soiled dishes just after the meals. This shelf is always open on the kitchen side and it can be opened full length on the other side when the dining table is to be cleared. The soiled dishes on the work shelf are in the place where they are needed for washing and, when dried, they are to be placed on the closed shelves above. where they will again be accessible from either kitchen or dining room

A window over the sink admits light that is softened by the shade of porch, and provides an outlook from a corner of the kitchen that would otherwise be too confining for the worker at the sink.

It has been assumed for this plan that a coal range will be used in the kitchen and that some wood will be required. Both coal and wood bins have therefore been provided in such manner that they can be filled from the outside of the house and emptied from within the kitchen. The wood bin is under the built-in work table. It will prove convenient if in daily use; otherwise, it may better be omitted and a portable work table provided. The coal bin has a raised floor which slopes toward the kitchen and extends under the raised closet which has been provided for stove utensils. The object is to make the bin as convenient as an open coal box within the kitchen and to have it hold a wagon load of coal (or wood), which is to be unloaded through a high door in the outside wall. A better arrangement may be to interchange this bin and the pantry and to have the sloping floor over the basement stairs and with the same inclination.

TO TAKE CARE OF ASHES

used, some provision should be made lounging, work and play, will make for the easy care of the ashes. One of the living and dining room easier to stumps to pull can afford a stump

basement with a pipe extending upward through the ceiling to the ash to the kitchen window which opens box of the range, but, it is recommended for this plan, that an addition- signed for the porch openings an inal four-inch brick wall be built in the basement as indicated by the dotted the ceiling out of the way and that lines near the range and that the space closes and locks tight against wind inclosed be covered by a concrete slab to support the range. This space will hold at least two years' accumulation of ashes without any danger whatever of fire. A small iron ash door should be provided at the basement floor.

Should an oil or gas stove be needed in addition to the coal or wood range, it may be placed to the right of the work table. The fuel bins may then be omitted. The casement windows in the north side of the kitchen are three and a half feet above the floor and therefore higher than the range.

The wash room, or wash and laundry room, is intended primarily as a cleaning-up place for the men and boys. A hat and coat room is prospace marked "Pantry" on the plan may be used to better advantage for this purpose and the spaces marked "Coal Bin" and "Coats" can be used for pantry and refrigerator.

The fixed laundry tubs are suggested to the housewife who prefers them on the first floor and near the kitchen. They are in a well lighted and ventilated room, near the kitchen fire, yet protected from the heat, and near an outside door. The tubs may be made to serve the purpose, also, of a lavatory sink. As placed in the plan, they obviate the need of a balustrade for the stairway. Excellent laundry space can be provided in the basement and a combination laundry stove and water heater placed there can be used also for heating water when gas or oil is used for cooking.

AVOIDS ENTRANCE FROM OUTSIDE

The basement stairs as provided in the plan, obviate the need of an outside entrance to the basement with the heavy storm doors that are so hard for women to raise. The grade entrance is desirable also in winter when outside entrance steps are to be avoided.

Large inclosed living porches, where the family can work and play, eat and sleep and entertain company in a more informal way than in better furnished rooms, have become popular with city folk, but they seem yet to be considered luxuries in farmhouses. Where tried by country folk, however, they are pronounced the most useful part of the house and they promise to become one of the recognized essentials of modern farm homes.

The success of these inclosed porches depends upon their size and their po- stumps may be used for wood if desition with respect to other rooms and sired. It is best to remove the roots

upon the porch. There has been deexpensive kind of sash that folds to and dust.

The terrace is an incidental provision that may or may not be included. It is an open air sitting space in the shade of the house that will be found very inviting during summer afternoons and evenings.

"The plans published are intended more to exemplify principles of house planning than as examples to be scrupulously followed," says Professor Etherton. "There is not a family for which this or any other house plan worked out upon assumed conditions is exactly suited. Moreover, there are as many opinions about certain features of house planning as there are individuals. Plans, however, contain vided for them at the entrance. The many suggestions to assist the layman to a better realization of his own ideas in the remodeling of his present house or in the building of a new one."

STUMP PULLER PROVES BETTER THAN DYNAMITE

Explosive Is Dangerous and Often Leave Large Roots in Ground-How Work Should Be Done

Land covered with stumps can be quickly, easily, safely, and economically cleared by means of a stump puller. Dynamite may be used, but are left in the ground. A stump puller leaves no roots.

This has been the experience of W P. Blain, horticultural foreman at the Kansas State Agricultural college, who for several years has had charge of stump pulling on the college campus. He has found that stumps pull better when the ground is dry, as the dirt loosens more readily around the roots.

It is not practical to clear land without first chopping away the trees. Longer hitches are necessary and the branches become entangled in the cables, if the trees have not been re-

Mr. Blain has found that old stumps may be pulled much more easily than those pulled immediately after cutting away the trees. The pulling power needed decreases almost one-half in one year from the time the tree is cut. Also, the longer the stump, the easier the pull. Large stumps should be left longer than the smaller ones. A stump three feet long gives much more leverage than one a foot long. Small

screens to the inside porch doors and RAISE MORE ALFALFA LARGER ACREAGE WILL HELP AG-

RICULTURE OF KANSAS Production Has Increased 3,000 Per Cent in 25 Years-Crop Grows in All

to Plant "Grow more alfalfa," is the suggestion of Ralph Kenney, assistant profes-

Parts of State-When

sor of agronomy in the Kansas State Agricultural college, to farmers of Alfalfa production in Kansas has increased in the last 25 years approximately 3,000 per cent, but should increase still more. It has a wide distribution in Kansas, being grown all the

way from the western section of the state, with a rainfall of 15 inches, to southeast Kansas, where the average rainfall is 50 inches. It is the most profitable of all hay crops under irrigation, and because of this extreme range of adaptability there is little doubt that it will be ranked as one of the most important forage crops in practically all states within the next 50

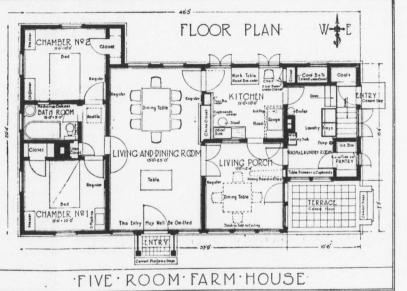
Its acreage is now greatest west of the Missouri river, but it is found in nearly all counties of states farther east, points out Mr. Kenney. Some soil conditions will have to be carefully changed in the southern and eastern states before alfalfa will be grown successfully, but its high yield of palatable feed, which is rich in this method is less rapid. Dynamite protein and easily digested by all is dangerous and often large roots classes of live stock, will give it a high place in all systems of profitable farm management.

WAS INTRODUCED IN 1850

"It has taken approximately 60 years for alfalfa to attain its present position in American agriculture. It was introduced into the western part of the United States in 1850," says Mr. Kenney. "Knowledge in regard to farm crops has been comparatively slow in its distribution in the last half century, yet, if facts and figures are distributed as rapidly in the next quarter century as in the one just past, the acreage of alfalfa will be far more rapidly increased in the future.

"Alfalfa may be planted in eastern Kansas in either spring or fall. In spring planting, however, failures are frequent, no matter how carefully the seeding is done.

"Twelve to 15 pounds is sufficient seed for soil carefully prepared. Dryer sections, however, cannot sustain so many plants to the square foot and five to 10 pounds is usually sufficient there. In the dry sections there is no choice of time of seeding other than that it must be done when the most rain falls and that is generally the spring and early summer."



THE PLAN FOR THE BUNGALOW

planned here is large enough for an should be piled and burned. extended dining table. With ceiling beds, it could be used for both dining conveniently located nor well planned for some kitchen work, for ironing, for sewing, for playing and for sitting Should a coal or wood range be and lounging. Its general use for

to the sun and summer breezes. It from the stump at the edge of the hole. depends also upon the means provided All dirt and small roots may then be for inclosing them. The porch as used for filling the hole. Large stumps

Stumps of apple trees are easiest to pull. Ash and maple are fairly hard and sleeping purposes; but it is not to pull, and elm and oak stumps hardest. Oaks have long, heavy, tough for beds. It is, however, well suited roots, and elms have many long, fibrous roots. Each root holds a certain amount of dirt, requiring that much more power in pulling.

Anyone who has a large number of

ALUMINUM KITCHENWARE IS WORTH HIGHER PRICE

Utensils of this Material Will Last More Than Twice as Long as **Enameled Ones**

Aluminum utensils for the kitchen cost more than enameled, tin, or granite kitchenware, but are more economical and satisfactory in the long run because of their wearing quality, according to Dr. H. W. Brubaker, assistant professor of chemistry in the Kansas State Agricultural college.

"The initial cost of aluminum is double that of enameled ware," says Doctor Brubaker, "but it will last more than twice as long. Tin, tinned iron, or agate lined utensils wear out much more rapidly. The enameled or agate ware chips off, whereas aluminum cannot be injured by being dropped or knocked against some ob-

"Fruit and vegetable acids will have no effect on aluminum, but alkalis are harmful. Alkaline solutions, such as solutions of soda, should not be heated in aluminum utensils. The lime residue on the inside of an aluminum teakettle may be removed with nitric acid which forms a thin coating of aluminum oxide and protects the kettle against further action. Hydrochloric or sulphuric acid cannot be used for this purpose as either one would dissolve the aluminum. Aluminum is light and easy to handle."

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PROPER HANDLING WILL MAKE BUT TER BRING HIGHER PRICE

Both Farmer and Station Manager Should Be More Particular in Looking After Product, Says State Commissioner -Advertising Dairy Industry

It pays to be particular. Would Kansas farmers and cream station managers exercise more care in handling the raw product which is sent to the creameries, the butter would sell as "extra," according to George S Hine, state dairy commissioner. This would mean increased profits.

"The creameries of Kansas are almost without exception equipped with the latest and most efficient machinery and have in their employ the best men money can procure," says Mr. Hine. "The cream received at the plants is pasteurized before being manufactured into butter. This is with the object of destroying all detrimental bacteria. Why, then, does not Kansas butter sell as 'extra'? The answer is an easy one-the raw product does not reach the plant in a condition which makes possible the manufacture of an extra piece of butter.

"There are two factors which affect the quality of cream and lower its value-care given in the cream station and care given on the farm.

ROOM MUST BE SANITARY

"A room suitable for handling dairy products should be located on a well drained piece of ground and be at least 50 feet from any stable, barnyard, oil shed, or similar place. The room should be so constructed that it can easily be kept clean. The walls and ceiling should present smooth, hard surfaces. Cement or enamel is ideal. The floor should be smooth and tight, concrete or a hard, smooth wood being preferred."

The cream station should be well lighted. It should have one square foot of glass to every five square feet of floor. Sunlight not only acts as a germicide, but enables the operator to easily detect any dirt. Dark rooms Is Exceptionally Desirable for Grain in are invariably dirty rooms.

Every cream station must have enough equipment adequately to handle the necessary work, says Mr. Hine. The sink or some place in which to wash the milk cans thoroughly is a necessity. This should be kept clean and the water changed at frequent intervals. If a boiler is included in the equipment, the water for washing can can readily be sterilized too. Scales. glassware, a stirring rod, a thermometer, a can rack on which to invert the cans, towels, and brushes are necessities in every station.

A dairyman stepping into a properly equipped, clean, neat station usually feels a desire to take better care of his own cream. Particularly is this the case when he sees his neighbor's or perhaps his own cream being poured into a can placed under a placard marked "Second Grade," for if his conscience does not hurt him the 3cent cut in price because of the poor quality is bound to be noticed.

IMPRESSES DAIRYMAN AND CONSUMER

The station operator must remember. points out Mr. Hine, that he is the man coming into direct contact with the producer and the impressions received through him have a decided influence on the dairymen. Consequently, in addition to maintaining a sanitary station, he must care for the cream. He must not only grade it but keep it cool and ship at as frequent intervals as possible. He never should keep cream on hand more than 24 hours.

The consumer forms his ideas of creamery butter largely from the impressions gained from seeing cream in transit or in the cream station. dustry has are its stations. There would be preferable.'

TAKE CARE OF CREAM are 2,200 of them in Kansas. The GROWS ON operator should be sure to call the attention of visitors to his methods of handling cream. Only the good cream is used in manufacturing the first grade butter. The different grades of cream are churned in separate churns and sold at different prices, depending on the quality of the butter manufactured. The tastes of the discriminating consumers are thus safeguarded.

"Profitable dairying means more and better cows, more pounds of butter, and thus greater profits for everyone concerned," says Mr. Hine.

KANSAS WHEAT STRAW IS WORTH MILLION A MONTH

Proper Application of Product to Soil Would Mean Enormous Gain in Plant Food

If all the wheat straw raised in Kansas in one year were properly applied to the soil it not only would supply like other legumes, makes the greatest organic matter to increase greatly the productivity of the soil, but would lime. It is fairly heat and drouth realso add more than \$12,000,000 worth of plant food annually, according to R. I. Throckmorton, assistant professor of soils in the Kansas State Agricultural college.

"Wheat straw," says Mr. Throckmorton, "is one of the most valuable by-products of the farm and if it is burned not only is the organic matter ordinary pasture grasses. It furnishdestroyed, but most of the plant food es grazing during the summer and as well. The most economical method fall months at a time when the true of utilization is the use of all the straw possible for feed and bedding and the application of the manure to the soil. When this is not possible straw should be applied as a surface dressing during the winter at the rate of one to 1½ tons per acre. A heavier application should be avoided.

are made the straw acts as a surface mulch and aids in the conservation of conditions and ordinarily will conmoisture. Later it becomes incorporated in the soil mass and supplies organic matter and plant food."

FETERITA WILL BECOME IMPORTANT KANSAS CROI

Western Kansas-Does Not Produce **Enough Tonnage for Silage**

Feterita has demonstrated its worth as a dry weather crop and will become an important factor in Kansas agriculture. It is not adapted to cold, wet weather and consequently is not recommended for the eastern third of the state.

"Feterita is an exceptionally good best be heated by steam. All utensils crop for western Kansas but in eastern Kansas the regular blackhulled kafir is better," says L. E. Call, professor of agronomy in the Kansas State Agricultural college. "In a dry season this crop will prove satisfactory farther east. The acreage in Kansas has been increasing rapidly, but a decrease is predicted for this year because of the disappointment experienced last season due to the abnormally cool and wet weather. We have been warning farmers in eastern Kansas against planting feterita on account of its inability to stand an excess of moisture.

"It is a crop that is drouth resistant and has the ability to withstand long seasons of dry weather and to keep developing under those conditions.

"The white shale soil of southeastern Kansas seems to grow feterita better than kafir or corn, and under ordinary circumstances feterita will do better than any other row crop upon

"The feed value is about the same as kafir. The grain is a little softer. It cannot be considered a silage crop, however. It is distinctly a grain crop, and does not produce sufficient tonnage to the acre for silage. If the farmer wants a crop for the silo, I would suggest western orange or red amber sorghum for the west central part of the state. In the eastern part The best advertisements the dairy in- of the state, Kansas orange sorghum

ALL SOILS

LESPEDEZA PROVES VALUABLE IN SOUTHEASTERN KANSAS

Leguminous Crop Furnishes Pasture in Summer and Fall, When Grasses Are Scanty-Spreads Over Land Rapidly Seed Travels Long Distances

Lespedeza, or Japan clover, is a valuable addition to the grasses for southeastern Kansas, according to C. C. Cunningham, of the agronomy department in the Kansas State Agricultural college. It is distributed most abundantly in Cherokee county but occurs in numerous areas in Labette, Montgomery, Crawford, Neosho, Wilson, and to a limited extent in adjoining counties. It is gradually spreading wherever it occurs. It seems to be able to thrive in all types of soils in southeastern Kansas, but growth on fertile loam soils rich in sistant and also thrives under fairly wet conditions.

The crop is of little value for growing in Kansas other than for pasture, Professor Cunningham points out. Like other legumes, it is rich in protein, which makes it more valuable as a feed than an equal amount of the grasses are likely to be of minimum value for pasture purposes. It has been estimated that this crop increases the carrying capacity of pastures in which it occurs by at least 25 per cent.

WILL STAND CLOSE GRAZING

"Lespedeza," says Mr. Cunning-"When top dressings of this kind ham, "will stand close pasturing. It readily reseeds itself under pasture tinue to grow indefinitely. When once established in any portion of a pasture it will soon spread over the entire area. The seed may or may not be injured by digestive processes, and live stock grazing on the matured plants will transport seed wherever they roam. Running water is another agency instrumental in transporting seeds, and the crop is often carried long distances in this way. In parts of southeastern Kansas this legume can be found along streams where it has been carried by the running water.

"Very little is known regarding the seeding of lespedeza under Kansas conditions, but since the crop reseeds itself naturally under all ordinary conditions, it is safe to assume that seed scattered in pastures, preferably where grass is thin, will become covered by natural agencies and will grow. It would be well, however, to insure the covering of the seed by lightly disking the ground if possible and harrowing in the seed or putting the seed into the soil by using a grain drill or grass seeder. Since the seed is high in price the most practical way to establish it in pastures is to seed it thinly and depend on the crop's naturally reseeding.

WHERE IT'S WORTH TRYING

"The crop is of sufficient value to warrant an attempt to establish it in pastures in Miami, Franklin, Osage, Chase, Butler, and Cowley counties and all counties south and east of the ones mentioned where it is not at the present time growing. Whether lespedeza will prove adapted to other parts of Kansas is not known."

To O. A. Rhoads of Columbus, belongs the honor of seeding and producing the first crop of lespedeza hay grown in Kansas. In 1914 the agronomy department of the college coöperated with Mr. Rhoads in conducting a test to determine whether or not lespedeza for pleasure, that is all right, but he grown from seed produced in Louisiana would prove sufficiently hardy to thrive and reseed itself under Kansas conditions.

The results obtained in this one test indicate that southern grown lespedeza will establish and mantain itself when seeded in the southeastern part of Kansas. This is important in that practically all the seed on the market is produced in Louisiana, Mississippi, and other southern states. Northern grown seed, if available, would undoubtedly be better adapted to Kansas conditions than southern grown seed, but will not probably be available in the near future.

PROGRAM FOR ANNUAL ROUND-UP IS STRONG

Agricultural Leaders Will Make Addresses at Big Hays Meeting-McClure and Weeks to Preside

A strong program by agricultural leaders of the middle west was announced today for the third annual round-up to be held at the Fort Hays Branch Experiment station Friday, April 7. Stockmen from the entire great plains region are expected to be present to hear the program and learn of the experimental work.

M. L. McClure of Kansas City, Mo., president of the National Live Stock exchange, will preside at the opening session. The round-up will open at 10 o'clock with a paper on "The Relation of Banking to the Cattle Industry" by Mr. McClure. J. C. Hopper of Ness City will discuss "The Hereford Cattle Breeder and the Banker." R. W. Brown of Carrollton, Mo., secretary of the American Galloway Breeders' association, will speak on "Kansas Galloways." J. H. Mercer of Topeka, live stock sanitary commissioner, is to present a paper on "Live Stock Sanitation."

C. R. Weeks, superintendent of the Hays station, will preside at the afternoon seesion. Following is the program: A. E. de Ricgles, president of the Denver Live Stock exchange, "The Market Situation;" W. A. Cochel, Kansas State Agricultural college, "The Experiment Work at Hays;" and Mr. Weeks, "Inspect Feed Lots and Pastures."

IT WILL PAY FARMER TO GET LIGHT AUTOMOBILE

Purchase a Car that May Be Used in All Kinds of Weather, Advises Engine Expert

It pays the farmer in dollars and cents to own an automobile and especially a light car, in the opinion of E. V. Collins, assistant in steam and gas engines in the Kansas State Agricultural college.

"In the busy season of the year when time is worth money, and repairs for machinery are needed, the farmer can take his car and make the trip to town for the necessary repairs without a great loss of time," said Mr. Collins. "Or when groceries and provisions are needed for the house, the trip can be made to town in the noon hour or in the evening without taking the time from the field work."

If the farmer has a light car-a car that is cheap enough so that he feels like using it in good or bad weatherhe will save time and save his horses, according to Mr. Collins. If some repairs to the fence are to be made, the farmer can throw his tools and a few fence posts into the car, and go out and do the work in the time ordinarily required to hitch a team. It is a waste to board horses for traveling purposes when they are needed in the field, and when an automobile will better meet that requirement.

Mr. Collins believes also that a farmer has no business owning a big heavy car unless he can also afford a small car. If he can afford a big car should also have a small car for general work, as he can not afford to

PLANT BEFORE APRIL 1

NOW IS THE TIME TO START POTA-TOES, SAYS HORTICULTURIST

Use One-Eye Pieces in Eastern Kansas, Two-Eye Ones Farther West-Treat Seed with Formaldehyde for Scab and Other Diseases

Between now and April 1 is the time to plant potatoes, and for goodness' sake plant them in the ground and not in the light or dark of the moon-so advises F. S. Merrill, assistant in horticulture at the Kansas State Agricultural college.

Fall plowing for potato crops has given uniformly greater yields than merely plowing the ground in the spring. Heavy ground which is plowed in the fall should be shallowplowed in the spring. Shallow spring plowing is more beneficial to the crop.

The potatoes should be planted from three to five inches deep. When they are planted near the surface of the ground, the soil is likely to dry out and the potatoes are liable to be checked in their growth. When they are planted more than five inches deep, so much strength is needed for the main shoot to force its way through that it has a retarding effect on the growth of the plant.

In the eastern part of the state oneeye pieces are used in planting but in middle and western Kansas it is advisable to use two-eye pieces because of the drier climate.

HOW TO PLANT POTATOES

The potato rows should be from 30 inches to three feet apart; and from 11 to 13 bushels of seed should be used to the acre.

Potatoes should be treated for scab and other plant diseases before planting, in the opinion of Mr. Merrill. A good solution for treatment is one pint of 40 per cent formaldehyde to 30 gallons of water. The seed should be allowed to soak from 11 to two hours. It is desirable to soak the seed in the sack as any spores adhering to the sack will also be destroyed. The seed should then be spread out to dry in the sun before cutting. Corrosive sublimate is sometimes used but as it is a deadly poison, it is more dangerous to use where live stock is likely to come into contact with it.

Mr. Merrill advises the hand cutting of the seed, as mechanical cutters have no adjustment for arranging the position of the seed and generally do not give as satisfactory results as hand cutting.

The standard commercial crop of Kansas is the early Ohio, according to Mr. Merrill. This variety has outyielded any other under adverse conditions. The Irish cobbler averages somewhat higher in quality and for home use is a good variety. The early six weeks is another variety of high quality but does not yield so heavily as either of the other two. The russet Burbank is a heavy yielder but does not seem adapted to the soil and climatic conditions of this district and is usually low in quality.

FARMERS CO-OPERATE TO RECLAIM VALUABLE LAND

Linn County Bureau Engages in Profitable Activity-Tile Drainage Employed

The Linn county farm bureau has been active in reclaiming rich limestone soil by securing the coöperation of a half dozen farmers in one locality in tile-draining wet land.

This was made necessary as a result of the excessive rainfall in 1915. The farmers cooperate in the purchase of their tile at wholesale, thus benefiting each cooperator. After these farmers realized that the drainage work could be done at less expense take the big car out and run it around than they had estimated they reclaimed in the mud and in all kinds of weather. some of the best land on their farms.

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SATURDAY, MARCH 25, 1916

Few farm jobs take as little work and give as good returns as does testing seed.

With Mexico wide awake and the European war continuing, one can find a dozen "well authenticated rumors" to talk about any day.

It has been nearly a year since an editor has had to spell "Przemysl." But he can still keep in practice on such little beauties as "Guanajuato" and "Tlaxcala."

RED APPLES

Red apples usually bring a better price than others, says a horticulturist in discussing fruit growing.

The horticulturist's statement will be echoed by nearly everybody else. Probably brown apples or green or yellow ones taste just as good as red apples, but who'd think of stopping at a fruit stand to buy a big brown apple? Even brown grape fruit is hard to sell, in spite of the generally admitted fact that it's better than the more attractively colored sort. And as for apples, when you think of an apple, you think of a red one. Who'd duck his head in a tub of water on Halloween to get a fine lemon-colored apple? Small boys have stolen red tracted first a fixed oil, which is simiapples, fetching young women have lar to almond oil; and, next, a volatile peeled them and cast the paring over product very much like the oil of bitthem, artists have painted them. Why shouldn't we want red apples?

CHOPPING WOOD

Wood chopping is rarely looked upon with pleasure by the majority. But that a pleasurable viewpoint has been established is proved by a conversation between two small boys.

"Don't you hate to chop wood?" said Sam one day in Tom's woodshed.

"No, I rather like it," said Tom. "When I get a tough piece, I say, 'you think I can't split you but I will,' and I get a firm hold on the axe, and crack goes the piece of wood."

"Ha, ha," laughed Sam, "I would rather be in a bank and have nothing to do but separate some money and things like that."

After all, wood chopping may be a most interesting diversion if looked at from the proper point of view. Of course, in the case of the small boy with all the imaginative stores of childhood, it may more easily assume the outlines of a game or battle. It may even be the means of a remarkable one sided conversation. Can you not imagine a heated controversy between a small boy and a particularly knotty old chunk of wood that has ster in a fairy book, who is clothed has been unequal to her task. To such of 1912. The library references call presiding.

and laugh, for it will be your last. Lay your head on the block and I will will give his axe a mighty swing and cleave the chunk from helmet to breastplate.

Of course, this is only a figure of childish imagination. But it need not be exclusively so It is the adult mind that invents the fairy tales and children's stories. Why not apply some of the dream stuff to the wood chopping tasks of life? There is wood chopping to do in every kind of work.

TRIM THAT HEDGE

Many a Kansas roadside is lined with Osage orange hedges. Now the hedge makes a good fence if kept properly trimmed and cared for. Yet when a hedge is allowed to grow as in some localities, it becomes a nuisance. Some hedges have grown until they extend 15 or 20 feet into the road. This makes it difficult to grade the roads, or to cut the weeds on the roadsides. Then, too, in the winter the hedges catch the snow, thus frequently causing snowdrifts; in the summer the hedges shade the roads so that after a heavy rain it takes much longer for the road to dry.

Contrast the road lined on either side with large, untrimmed hedges and a road free from such a nuisance. Hedges extending almost to the middle of the road should not be tolerated. Kansas has a law which makes it obligatory for the land owner to cut or trim his hedges. Good roads are practically impossible with untrimmed hedges. Every land owner should see that hedges on his place conform to the law.

A USE FOR CHERRY SEEDS

Scientific chemical inquiry is continually converting waste products into by-products of value, and one of the latest things to be rescued from the dump heap is the humble cherry seed Whoever, except an inquisitive chem ist, thought of utilizing cherry pits? Yet there are two or three elements of value locked up in the kernel of this seed and how they may be profitably rescued is one of the many problems that the laboratory of the department of agriculture has been working out.

The kernel of the cherry is oily and from it, by a dual process, may be exthe shoulder, poets have written about ter almonds. After these oils are extracted the residue, in the form of pressed cakes, makes a food for cattle similar to linseed cake, containing as its elements, fat, protein, sugar and other carbohydrates.

Of course the economic value of these products depends upon the cost of production. It is considered as established that this cost can be minimized to the economic point if the business is handled on a large scale, as by some central special plant to which canning factories send their seeds. The problem now being studied out is how individual factories may profitably produce their own by-product.

Other possible by-products are jellies, sirups and alcohol from the large amount of cherry juice that is wasted in the seeding process. It is estimated that the wastage in the canneries each year would, if utilized, make 85,000 gallons of jelly, 21,000 gallons of table sirup, or 5,000 gallons of alcohol.-Indiana Farmer.

HOUSEKEEPING A PROFESSION

Happily the days are passing when the feeling prevails that "anyone can keep house." We have been a long time in learning that housekeeping is a profession for which intelligent prepabeen defying the boy's most strenuous ration is demanded. The woman who efforts with the axe? After each vain announces that housekeeping is drudgstroke you can see the old chunk give ery and that she keeps as far away from Kansas. The outline brings our his- a combination of the two regular proa terrible twisted grin like some mon- it as possible, thus confesses that she tory up to date, including the election grams, and the two presidents unite in to humanity.—Bismarck (N. D.) Trib-

with an impenetrable yet invisible it must ever be drudgery, but to her attention to the best authorities on armour. But the boy is not to be who understands the possibilities and daunted. In his mind perhaps the satisfaction in a well ordered house chunk has become a giant who is the and gives herself to a conscientious terror of all the other chunks, and and intelligent study of its problems, who must be destroyed at all hazards. it gives an insight into and an under-Taking a fresh hold on his axe in an standing of people and things; it proexecutionerlike manner, he is apt to vides a place for the application of say, "Well you old villian, go ahead economics, ethics and esthetics; it yields the satisfaction of achievement and the gratitude and love of those sever it from your body." And he who have shared the benefits of such a from seventeenth century England", home. - Isabel Bevier in "The House."

USING A TRACTOR

satisfactory depends largely on the an American war of independence?" ability of the driver. A person who "Was it revolutionary?", "Was it a

special periods or phases or subjects. The book includes good outline maps, with features not found in other maps.

The book is valuable for working out any special topic or important subject in national history. It is, moreover, full of suggestive topics and questions provoking new thought and new interest. For example, "Fortunate that America was colonized "Were any stamps sold in America under the Stamp Act?", "Were the navigation acts injurious or beneficial Whether or not a tractor will prove to the colonists?", "Why was there does not understand the operation of civil war?", "Was it a war of expan

TWO TWILIGHT PIECES

Louise Marie Bogan in the Boston Transcript I-TOWER

How faint and strangely evening

comes, like sound Blown faltering. Slow to the east,

aloof. The last dark spreads to the last space

of sky, To the last roof.

The wind is caught, is broken like a sigh:

A twilight bird sweeps low through the deepening hour. Stilly, unheard, blooms the lonely

dream in the heart And a star by the tower.

II-RAIN

The branches that but now Thin rain has trembled through Hush, in the breathless air Like mist, against the blue.

The thicket of the dark Most deep, finds fire again; Like lost and lonely moons The street lamps light the rain.

SUNFLOWERS

Some day we are going to cut loose and say just what we think about some of these short skirts we see.

Have you ever noticed that an unassuming man invariably has a wife that weighs at least 190 pounds?

The great trouble with an 18 year old girl is that she usually knows so much more than she ever will know afterward.

FOWL SECRETS, AS 'T WERE

We used to get all our secrets from the little birds. Now we tell them all to the chickens.

"AND THE ONLY TUNE-"

Mae, Mae, across the way, Plays the piano the livelong day, And the tune she plays from two to two Is known as "Good-by, Girls, I'm Through."

-New York Tribune. Fair Flo, petite, across the street, Forever tries her bird notes sweet, And from dreary morn to midnight gay She seeks the end of "A Perfect Day."

SCIENCE-FRIEND OR ENEMY?

Science has made the present war in its cruelty, its vastness and deadliness, the most horrible war of all time. We turn with relief from the gigantic butchery of modern, scientific war machinery to the honest hand-to-hand battles of Homer's Iliad.

Year after year science has been perfecting the instrument of war. Submarines, high explosive shells, air craft, machine guns, poisonous gas are some of the terrible things science has put into man's hand only to see them turned to man's destruction. It looks as though science were man's worst enemy instead of the friend we

And yet Sir William Osler, in summing up the constructive and destructive achievements of science, asserts recognize science as really the bene-

For along with the diabolical engines of war have come wonderful discoveries and inventions for the reduction of suffering, the healing of wounds, and the prevention of disease.

Science has given us more efficient means for the transportation of the sick and wounded. It has taught us to fight successfully against the diseases of peace as well as war. Tuberculosis, pestilence, camp diseases, tetanus, are all yielding before the onslaught of science. The use of antiseptics, cleanliness, sterilization, are making possible the successful treatment of very ugly wounds. The organization of nursing, surgical technique, and hitherto undreamed of mechanical appliances are beneficent gifts to man.

And these are the things that will last after the war is over. They are A joint session of the Webster and the friends of progress and civiliza-Hamilton societies is arranged for tion. When the world is wise enough for self destruction it will find science well started on its mission of service

Thomas. Nixon Carver

The Productive Life

THE fellowship of the productive life offers to young men days of toil and nights of study. It offers frugal fare and plain clothes. It offers lean bodies, hard muscles, horny hands, or furrowed brows. It offers wholesome recreation to the extent necessary to maintain the highest efficiency. It offers the burdens of bringing up large families and training them in the productive life. It offers the obligation of using all wealth as tools and not as a means of self-gratification. It does not offer the insult of a life of ease, or esthetic enjoyment, of graceful consumption, or emotional ecstasy. It offers, instead, the joy of productive achievement, of participating in the building of the Kingdom of God.

To young women it also offers toil, study, frugal fare and plain clothes, such as befit those who are honored with a great and difficult task. It offers also the pains, the burdens and responsibilities of motherhood. It offers also the obligation of perpetuating in succeeding generations the principles of the productive life made manifest in themselves. It does not offer the insult of a life of pride and vanity. It offers the joy of achievement, of self-expression, not alone in dead marble and canvas, but also in the plastic lives of children to be shaped and molded into those ideal forms of mind and heart which their dreams have pictured. In these ways it offers to them also the joy of participating in the building of the Kingdom of God.

machinery will have little success with sion? Of secession?", "Why did not the best grade tractor, while one who does understand it will have fair success with the poorer ones. The operator must be able to locate and thus remedy any trouble promptly. He should know how to inspect and adjust the bearings, ignition system, and keep the thing oiled up and the engine in good working order. The sale of a tractor to one who cannot do this will be a disappointment to the buyer, the manufacturer, and prospective buyers. Westward the course of the tractor takes its way and brings the world to lightness and to me.-Field and Farm.

ABSTINENCE COST MONEY

Seventy years ago drinking was so common that, when a total abstainer applied to a London company for a life insurance policy, the board of directors held a special meeting to deal with the unprecedented case. They finally decided to insist on a special premium to cover the extra hazard, but the man upset their expectations by living to the age of 82. Since then every insurance man has learned that even moderate drinking makes a man a poor risk .-- Youth's Companion.

RECENT BOOKS

Price, Ralph R. American History Note Book. Fourth edition. Pp. 229. Topeka: Kansas State Printer. 30

Professor Price's work contains a valuable bibliography of American history, including the latest and best books on the subject. The bibliography was prepared largely for the purpose of helping high school teachers and boards of education in selecting their historical library.

The outline of topics gives unusual emphasis to the industrial phases of American history, to the development this evening in place of the usual to stop using its scientific knowledge of the west, and to the history of meetings. The program is essentially

Canada and Florida also rebel against England?" A QUARTER CENTURY AGO

Items from The Industrialist of March 28, 1891 Superintendent Thompson is "baching" during his family's visit in

The carpenter shop is giving the finishing touches to a large culture

room for the botanical department. Mr. Shelton will occupy the cosy Ashford Stingley property, under the

shadow of Bluemont, after April 1. The last faculty dinner and Friday lunch were served this week, and the hitherto favored ones will fare have called it. the same as common folks during the remainder of the year.

Professor Hood is intently studying how to build an \$8,000 building with that even the wounded soldier would a \$4,000 appropriation. If the problem were possible, his ingenuity would factor of humanity. find the solution.

The class in butter making for next term will have more than 30 members, all from the young women of the second year. They will combine with the dairying some further lessons in cooking.

Spring term assignments show but a slight falling off in attendance. Some students find it necessary to go home to attend to spring work on the farm, while failures are responsible for the departure of a few.

Ex-Regent Coburn, whose efficient work as advertising manager for the Husted Investment company of Kansas City, Kan., has attracted wide attention, has resigned his position with that firm. His plans are not anannounced.

Dr. A. P. Immenschuh, '14, is practicing veterinary medicine at Monte Vista, Col.

William H. Sanders, '90, is making a short visit at the home of his father in Florida.

Miss Verma Treadway, '15, has been given charge of the lunch room in the Ennis department store at Wichita.

Eugene Blair, '10, and Mrs. Winifred Cal., where Mr. Blair is in the government service.

G. G. Ghormley, '10, has been teaching manual training in the Eldorado high school. He is planning on farming next year.

Floyd A. Smutz, '14, is now completing his second successful year as teacher of manual training in the Granite Falls (Minn.) high school.

In the conference for high school principals and teachers held at Lawrence, J. W. Zahnley, '09, led the discussion on "First Year Science in High Schools."

Clarence Fry, '12, and Mrs. Viva (McCray) Fry, '12, are living in Miami, Okla. Mr. Fry is principal of the schools there and Mrs. Fry is teaching in one of the grades.

I. E. Taylor, who has been doing graduate work in civil engineering, has withdrawn from college to engage in private practice. C. H. Scholer, '14, is associated with him.

Miss Etta V. Sherwood, '12, who is teaching in Cawker City, and Claude E. Earl of that city will spend next week end visiting with Miss Sherwood's sister, Miss Virginia Sherwood.

W. A. Brunker, '11, assisted with the demonstration of the Case Threshing Machine company at the traction shed last week. Mr. Brunker is regarded highly as a factory expert.

J. Clarence Jones, '13, has accepted a position in the valuation department of the Chicago and Northwestern railway. During the past two years he has been city engineer at Edgerton,

C. R. Jaccard, '14, is author of an article on "The Kirksville Home and School Garden Association" in a recent number of the Rural School Messenger. The article is attractively illustrated.

W. T. Worstell, '14, has just completed his second year as teacher of agriculture in the Medford (Minn.) high school. He has been successful in his work and has been reëlected for another year.

the Herald at Udall. He was married last September to Miss Martha Gaylord of Belleville. Mr. Miller passed through Manhattan recently on his way to Belleville.

Miss Mary Lee Turner, '12, has been reëlected as teacher of home economics in the Dickinson county high school at Chapman. A students' boarding club will be started there next year and she will have charge of it.

James West, '12, expects to complete the law course in the University of Oregon this spring. He will take the bar examination in May. He is living at the Young Men's Christian Association building in Portland.

H. A. Thackrey, '14, was a visitor in town and at the college Saturday. During most of the time since his graduation he has been employed by the Santa Fé railroad and is at present on valuation work with headquarters at Topeka.

C. F. Kinman, '04, horticulturist in the Porto Rico Agricultural Experiment station, is the author of an illustrated bulletin on "Cover Crops for Porto Rico." The bulletin shows careful investigation and is both interesting and practical.

ence at Lawrence last Saturday. Both made a fine showing."

ers of domestic science.

In the invitation meet for high school basketball teams at Lawrence three of the six teams in the finals were coached by former Aggie men. The Winfield team was coached by Frank Root, '14; the Arkansas City team by J. L. Robinson, '14, and the Lawrence team by Don McCallum, '14.

H. L. Kent, '13, spoke at Matfield Green recently on "The Rural High School." While there he was the guest of Henry Rogler, '98, and Mrs. Elsie (Speer) Rogler, '11, at their modern country home. Mr. Rogler has made a success of farming. He (Cowan) Blair, '11, are living in Barb, has a large modern residence, the largest barn in the community, other modern conveniences, and the reputation among his neighbors of being a model farm manager. Mr. Rogler was representative from Chase county in the last legislature.

DEATHS

FLORENCE E. LATIMER

Miss Florence E. Latimer died at her home in Lake Forest, Ill., on March 16. Miss Latimer was formerly instructor in music in the college.

IN ARCHITECTURAL PRACTICE

Dr. J. D. Walters, professor of architecture in the Kansas State Agricultural college, has received an interesting letter from Russel Williamson, '14, now foreman of the studio of S. O. Wright, architect, of Spring Green, Wis. Mr. Williamson says:

"Last year was spent very pleasantly in the Wright studio. Below is the water garden and about a quarter of a mile away is the Wisconsin river, all of which reminds me somewhat of Manhattan, only we have more water The surrounding country is here. beautiful.

"We laid out two villages in which all the buildings will be designed by Mr. Wright. This winter we have worked on a hotel which will be built over in Japan-a very big one that will cost about \$2,000,000 and will require a lot of architectural work, as the plans, elevations, and details must be transferred into Japanese measures so that the mechanics there can read them. Mr. Wright says he expects to take me over to Japan with him and, of course, I look forward to the trip with much anticipation.

"One of the boys who worked with me was Don Schuler of Wichita, a former junior of the Kansas State Agricultural college. He finished the plans that Mr. Wright had made for the new home of Henry Allen of Wichita, and left last Friday for his home town to practice architecture and to superintend the construction of the Allen house.

"Mr. Wright is away much of the Dwight Miller, '14, owns and runs time and leaves me in charge of the office and place. We had two new men to break to his way of planning and, consequently, I had considerable tutor work on hand. The new men are getting along nicely.

"A draftsman studying and doing the new style of architecture that Mr. Wright has created is likely to lose all regard for other styles. I find it people of this country are divided inhard to keep balanced-there are so many fine things about it. Sometimes for preventing war. Some tell us that and liver are not working to their I dream how I could make the homes in Kansas look if I had a chance to carry the low roof out there-the wide overhanging roof that keeps out the rain and the hot sunshine.

"I received a letter from E. P. Friedline, '14, now architect at Alden, Kan., a few weeks ago. He says he has been doing well there."

SUCCEEDS IN DOMESTIC ART

Miss Pearl Akin, '05, is teaching domestic art in Wood River, Ill., where her work is attracting favorable for blood as lustily as any of them. attention. Concerning it the Alton Daily Telegraph says:

"A three day exhibit of the domestic art department of the Wood River school has just been closed. The exhibit lasted Monday, Tuesday, and hope of peace is to make people afraid Wednesday and was attended by a of you. It is the doctrine of terror-Miss Edith S. Glasscock, '14, of the large number of patrons who were en- ism, and it is the doctrine that led Argentine high school, and Miss Jen- thusiastic over the good work done in Europe into this war, for they have nie E. Shoup, '15, of the Ottawa high the school. Miss Akin is in charge been trying for centuries to terrorize school, were attendants at the confer- of the art department, and her pupils each other.

INTERNATIONAL CODE SHOULD BENEFIT PEACEFUL NATIONS

Commoner Assails Preparedness Doctrines as Terrorism in Address to Students and Townspeople-Compares Military with Agricultural Expenditures

International law should be changed so as to be for the benefit of peaceful rather than fighting nations, and should recognize that peace instead of war is the normal condition. This was the position taken by William Jennings Bryan in an address to more than 3,000 students and townspeople in the auditorium of the Kansas State Agricultural college Tuesday afternoon. His subject was "War and Its Consequences to Us."

"The European war has no parallel or precedent in all history," said Mr. Bryan. "I do not call it the greatest war the world has known because the word great has in it a complication of something more than bigness. I think there have been greater wars than this but none that approaches it in bigness.

"This is a war that some people want us to go into. A week ago last night there was a meeting held in the most prominent hall of New York, and men argued in favor of this country's becoming a participant in this

"Every neutral nation is bearing a burden of taxation that would not be necessary were it not for this war. Our nation, the greatest of the neutral nations and the one with the most foreign commerce, has suffered more than any of the rest by reason of this

LAW HAS PARALYZED COMMERCE "It is international law which has driven the commerce of the world from the seas. When you understand international law as it is now interpreted and applied, I believe you will agree with me that international law seems to have been written for the benefit of nations at war and not for the benefit of neutral nations.

"This war is not a race war, it is not a religious war, it is not a family war, and there was apparent on the surface no cause for war. No one who loves God would ever think of blaming Him for the cause of this war. The cause of this war is to be found in a false philosophy and this war is but the result of that false philosophy to be found in the old brutal doctrine that might makes right. I appeal to you to set the seal of your condemnation on this philosophy. There is one moral code known among men and that code is the one that regulates individual life, and if this cannot be applied to nations then there is no code that will apply. The nations that enter war on the theory that might makes right soon enter a race to the bottomless

ALL WOULD PREVENT WAR

was a moral necessity to keep people from degenerating. We now believe together to prevent war. Today the to two schools and each has a plan the only way to prevent war is to get ready for war, and they tell us to insure against war we should drill with our finger on the hair trigger.

"Before this war only a few advocated preparedness, but they were generally the ones who were already prepared to furnish the preparedness at so much per prepare. In the present war, those best prepared went into it first; and could we have been so well prepared as some now want us to be, we should be at war today shouting

"If we are to have a burden of preparedness, we must first submit ourselves to the doctrine of those who believe that preparedness will prevent war. This doctrine is that the only

"If a madman of Europe were to furnished.

are successful in their work as teach- BRYAN FOR LAW CHANGE challenge us today, we should have THEY WANT RED APPLES the courage to say 'no,' that we have the welfare of 100,000,000 people to guard, and ideals to uphold. We should not get down into the mire, as Europe has done today, to conform to a false standard.

"If this country ever needs defend ers, it will find them, as in the past, among the producers of wealth who fight when the country needs them to fight, and who work when the country needs them to work. It found them in the civil war, a war as bravely fought on both sides as any war in history. The issue is not whether we will defend ourselves. It is whether we will change the ideals of the nation and whether we will step down to the brute

"During the last fifteen years we have spent more on the American navy than has been spent on any other navy in the world but one, and if yet we have no navy, why should we give more money to throw away as it has been thrown away? During the past year we spent \$250,000,000 on the army and navy, more than was ever spent in the history of the nation before, while we spent but \$23,000,000 on the agricultural department. More than ten times as much was given for an imaginary war as was spent on the realities of this country.

"If we ever change, it must not be while this war lasts. Without a big army and without a big navy, this republic has for more than 100 years done more to shape the policies of the world than any other nation.

"We cannot become a belligerent without ceasing to be a neutral, and if we go into war we are giving up the greatest chance of all times—to act as a mediator. I crave that honor for our nation, more glorious than any page of history yet written. This is the day for which the ages have been waiting."

GOOD LIVER AND GOOD LAYING GO TOGETHER

Therefore Make Hens Scratch for Their Food, Advises Poultry Expert-Fat Birds Make Records

There is a correlation between the legs and the liver of a chicken. Liver activity is absolutely necessary for egg production, so make the hens scratch for their food, is the advice of N. L. Harris, superintendent of poultry, Kansas State Agricultural col-

litter," says Mr. Harris. "Oat straw The advocates for the one year tree or alfalfa hay is good for this purpose. Hens should be fed liberally but should not be fed until they are willing to work for their food."

hen can become too fat to lay. Ex- cause there is a large amount of the periments have been carried on to de- original root system. termine the laying ability of fat and lean hens and in every instance the fat hens have outlaid the lean ones. earlier. Whether or not this point is "At one time it was argued that war The egg begins its formation with the true, other factors are in favor of one yolk, which is practically all fat, and so it is absolutely essential that a hen that war should be prevented and join have excess fat before eggs are formed. A hen does not cease laying from an oversupply of fat, in the opinion of Mr. Harris, but because her legs full capacity.

"PLANT TREES" IS ADVICE TO KANSAS SCHOOL PUPILS

State Forester and Rural Service Department Urge Planting Before April 15-Beautify Yards

"Plant a tree!" That is the slogan adopted by C. A. Scott, state forester, and Walter Burr, director of the rural service department in the Kansas State Agricultural college. Kansans particularly school children_are urged to set out tens of thousands of trees in the state before April 15.

Information on tree planting prepared by Mr. Scott will be sent out upon request by the rural service department. Available material includes instructions on the care of old trees, and advice as to what varieties to plant. School yard plans and information on where to obtain trees at the mere cost of production will also be

BUYERS FREQUENTLY LAY STRESS ON COLOR OF FRUIT

Climate, Soil, Market Demands, and Grower's Preference Should Determine What Varieties of Trees to Plant What Is Right Age?

Selection of varieties of fruit trees for planting should be based upon their adaptation to climate, soil, market demands, and to some extent upon the personal preferences of the grower, asserts F. S. Merrill, assistant in horticulture in the Kansas State Agricultural college. The last two points are largely arbitrary-most buyers, for instance, prefer red apples.

"Certain varieties of apple trees are adapted especially to particular sections of Kansas," says Mr. Merrill. 'Only these should be planted. Liveland raspberry, yellow transparent, duchess, wealthy, Missouri pippin, Grimes golden, Jonathan, delicious, winesap, and mammoth blacktwig have proved adaptable to Kansas climatic conditions. To some extent apples adapted to a climate are restricted by their soil requirements.

"The market demands play a more important part in the commercial orchard than in the home orchard, where all apples are consumed on the place. As a general rule red apples command higher prices than either the yellow or the green or russets. Here the appearance of the apple rather than its taste influences the judgment of the buyer. Apples of soft texture should not be grown when they must be handled often and shipped to a distant market. It is usually advisable for a man to grow such varieties as he personally prefers.

SPRING PLANTING FOR KANSAS

"Fall and spring plantings are both recommended for certain sections of the country, but for Kansas the spring planting has given uniformly better results than the fall planting. The fall planted trees are usually severely injured by the freezing and thawing of the ground before the roots are firmly established. This causes the trees to heave, making replanting necessary the following spring.

"Despite the fact that fall planting is not advised it is considered a good plan to order the nursery stock in the fall so as to get the best trees of the desired varieties.

"There is much controversy about "All grains should be fed in a deep the proper age of trees for planting. assert-and rightly-that the trees cost less, the freight charges are less, and the trees can be headed at any point the grower desires. A greater per-There is an old time fallacy that a centage of such trees will live be-

Those in favor of the older assert that they come into bearing year old trees.

CARE FOR TREES PROMPTLY

"As soon as the trees arrive from the nursery they should be 'healed' in a trench. They should be firmly tamped about the roots to exclude air."

All trees coming from reputable nurserymen must bear on the certificate the signature of the state entomologist, which shows that the stock has been inspected and that it is presumably free from insect injury, points out Doctor Merrill.

When planting, see to it that the hole is large enough so that the tree may be set from two to three inches deeper than it was in the nursery row, is his advice.

When the position of the tree is marked by a stake, the planting board will be found of advantage for keeping the trees in proper alignment. This is a board three inches wide and four feet long, with a notch in the center and one at either end. The notch in the center is placed against the stake and a pin is placed in each of the end notches. The board and the stake are then removed and the hole is dug. The board is placed between the two pins and the young tree is placed in

(Concluded on Page Four)

WANT TO GROW A LAWN GREEN AS OLD IRELAND?

HERE'S THE METHOD, FRESH FROM THE TONGUE OF A REAL LAND-SCAPE GARDENER-ANY SOIL GOOD FOR CORN IS GOOD FOR GRASS-IT JUST NEEDS CARE

LAWN MAKING

Any land that will grow corn will grow grass.

Plow deep, disk, and harrow. Use sod for narrow strips and terraces. Seed will give splendid satisfaction in all other

Sow the seed any time from March to May or from September to November.

Use fertilizers.

cide upon a house.

Dig out the dandelions. Kentucky blue grass is peculiarly suited to limestone soils. Plan your lawn before you de-

The first requirement for a good lawn is rich soil, declares M. F. Ahearn, professor of landscape gardening in the Kansas State Agricultural college. Any soil that will grow corn will grow grass. One foot of soil will do, but two feet is better.

"Provided the soil is suitable, deep plowing will put it in fine tilth," says this authority. "Do not imagine that because the yard is small, it cannot be plowed. Plowing is exactly what it needs, unless one has the time and disposition to spade it foot by foot. Poor ground must be heavily manured or improved by means of commercial fertilizers. The addition of well rotted barnyard manure to a sandy soil will aid in retaining moisture and will also add a certain amount of plant food to the soil.

PREPARE GROUND THOROUGHLY

"Thorough preparation of the soil lawn. Plow deep, disk, and harrow the soil until it becomes finely pulver- ticles." ized. Rake off all refuse and smooth the surface until it has a level grade.

"Hard, heavy soil may be broken up by means of dynamite or the use of a subsoil plow. After it is thoroughly worked, plant it to cowpeas. This crop should be turned under green to increase the amount of nitrogen and organic matter in the soil. In many places the growing of some field crop like potatoes or corn is a common practice. After the crop is harvested, several loads of manure should be applied to the ground and plowed under. Twenty to 30 tons to the acre should prove sufficient.

"On large estates, the ground, if not composed of heavy clay, should be rolled. This will make it more pleasing to the eye. Small lawns, of course, are usually level.

"A northern exposure is best for a lawn. Grading is the next important consideration. It should be in harmony with the surrounding land. There are various ways of establishing a grade. The simplest method is to drive several stakes into the ground and use a carpenter's level to sight from one stake to a third. Repeating over a series of stakes will give a perfect level. Use a straight, stiff rod or board, place it on any two stakes, and fill in or dig out the ground to the required level.

BE SURE THERE'S DRAINAGE

"If the soil is poor, it is often necessary to secure a rich loam for the top coat. This should be spread evenly over the entire surface of the lawn and not used simply to fill in patches here and there. Before the addition of this top soil, the ground should be roughly graded in order that it may be put on at an even depth."

Another important consideration, especially with wet, heavy soils, is underdrainage, Professor Ahearn believes. Tile may be laid from two to six feet deep, and at a distance of from is soaked. eight to 16 feet apart. Two inch tile is sufficient for the lateral drains, but larger tile should be used for the main fore the lawn is made, this may be der the recently laid sod. The yard

drain.

and provided for drainage, one has it ready for the seed or turf," says Professor Ahearn. "This brings up the question as to which is better, seed or turf, in making a new lawn. Comparing the advantages and disadvantages of each, we find that seed is used oftener because it costs less. Sodding an acre will cost approximately \$150 to \$175. Seed for an acre, with sowing and preparation of the soil, will cost approximately \$30.

LAY SOD AT ANY TIME

"Sod may be laid at any time of the year. It brings quicker results than seed and furnishes the desired kind of grass, but for the first season it requires careful and constant watering. By the end of this season, the lawn procured from seed will be able to hold its own with the turf.

"For planting narrow strips, borders, or terraces, use sod if it can be obtained. In all other cases, seed will give satisfaction. Sow the seed any time from March to May, or from September to November. Good lawns have been procured by sowing in June, but these were given exceptional care in regard to water and shade.

"For large lawns, sow the seed broadcast, preferably on a calm day so that the seeds will not be carried about by the wind. Use from four to five bushels an acre. It is well for one to sow half the seed while one is walking in one direction and the other half while one is walking at right angles to the first sowing. Drilling the seed is better for small lawns.

"Thick sowing will be most satisfactory, as it prevents the growth of weeds and other grasses. Rake the is the first requisite in building a soil soon after sowing so that all the seeds will be in contact with soil par-

NOT FOR LAZY MAN

Success in keeping up the lawn, points out Professor Ahearn, depends ipon the amount of care and work bestowed upon it. The principal points to be taken into consideration are watering, cutting, and feeding the grass. Many persons advocate rolling the lawn with a heavy roller at least once

Mowing should be done carefully the first year. The grass should be kept at least two inches long and the cuttings allowed to remain as a mulch. During spring and early summer mowing may be done every 10 or 15 days but in the summer the trimmings should be at longer intervals. In mid-September, the mowings should cease for the rest of the year. For best results, never mow too closely especially in extremely dry weather.

Rolling the lawn is absolutely necessary in climates where the soil is subject to alternate freezing and thawing weather, which causes the ground to become loose. It is necessary to firm the soil again by means of a heavy roller.

HOW TO WATER LAWN

"Watering a lawn well is no small accomplishment," Professor Ahearn says. "One often sees a person sprink- ing. ling grass with a nozzle that either shoots the water out with such force that it tears the grass out by the roots, or with such a gentle mist that it takes a week to wet the soil to the depth of an inch. Sprinkling lightly and often causes the roots to seek the moist surface instead of rooting deeply.

"When watering a lawn, allow the water to run from the hose, placing a board under the coupling to prevent. washing of the soil. A large shingle answers the purpose. Allow the water to flow in one spot for half an hour and then move it until the whole lawn

"Grass, like any other crop, requires fertilizers of some kind. Be-"Having properly prepared the soil manure, 20 to 30 tons to the acre. Af- and stone and plaster and other junk. fications for Institutional Work."

ter the grass is well established, commercial fertilizers may be used. Sodium nitrate, a quick acting fertilizer, should be applied at the rate of 200 have a lawn. pounds to the acre. This should be put on just before a rain or in liquid form. Bone meal, wood ashes, guano, and lime are often used to enrich the lawn. A fall or winter mulch of well rotted manure will give good results, and spring mulching has proved satisfactory in some cases.

WEEDS ARE ON THE WATCH

"Weeds quickly seize upon a chance to grow. A drouth causes the grass to die out in spots and weeds soon move in and take possession. The first rain gives them a good start and they soon trespass on other territory Where they have obtained a foothold, they should be dug out.

"Dandelions, plantain, crab grass sorrel, pepper grass, dock, and fox tail are the most serious weed pests.

"The only way to get a dandelion out is to remove the roots. One may cut a dandelion every morning right after one shaves and, like one's whiskers, it will grow again before night. Sprays, even, have succeeded only in killing the tops. Nature's weapons are the best, and every man who desires a clean lawn in this respect should spend at least as much time on his knees there as he does in church. produce 10,000 seeds.

"The best remedy for all weeds is prevention. Keep the lawn growing vigorously, adding fertilizers if necessary. Leave no bare spots without seeding. Watch for the first appearance of weeds, and destroy them immediately. Cut them out and firm the large bare space remains after digging out the weeds, it is best to add some rich soil and sow a little grass

WHAT GRASSES TO GROW

"Now a few words in regard to the best grasses or mixtures. Kentucky blue grass heads the list. It will thrive in almost any soil. It is peculiarly suited to a limestone soil and does well in this part of the state.

"Clover is sometimes added to blue grass at the rate of two or three pounds to the acre. Whether or not clover shall be used depends on personal preference. It grows rapidly and makes an attractive green lawn. After a time, however, it flowers and the blossoms later fade to a dirty brown color, which adds no beauty to the landscape.

"Various mixtures may be secured that are prepared for special plantings, such as shady locations, terraces, tennis courts, baseball diamonds, golf links, and the various kinds of soils. All these may be obtained from any reliable seed house.

"To complete the lawn equipment, one will need a hose, a lawn mower, a rake, a scythe, and an edging knife. PROFESSOR AS GARDENER It pays to keep the lawn beautiful, but this is possible only through hard, conscientious work."

Professor Ahearn advises against buying any and every kind of shrub advertised. Keep the front of the lawn clear of such things. Plant in the corners, at the sides, and at the back. Don't put a flower bed in a small lawn. Many persons do this and plant annuals that are dead about the time the rest of the world is bloom-

ORGANIZE TO KEEP LAWNS

It is a fine scheme, believes Professor Ahearn, to organize by blocks and have a captain to watch the lawns. This applies also to planting shrubs, hedges, and trees, for all these things are the trimming of the lawn. Too many property owners spend all their money on the house and forget the lawn and the other surroundings. The lawn should be planned before the house is decided upon, and before one buys the land he should know something about it.

"If one is buying a ready-made house, just finished," comments Mr. Ahearn, "he should know what is un-

This is a trick often discovered too late, and always results in disappointment for the man who would like to

"Many lawns are spoiled by carelessness or ignorance in placing the house. One house is back 40 feet and another is built on the property line. If owners would meet, draw up a plan, and agree on a plan before beginning work, every community would be benefited from a landscape point of view.'

THEY WANT RED APPLES

(Concluded from Page Three)

the center notch and kept in the true line of the stakes.

Before being set out, the trees are puddled in a mixture of clay and water This covers the roots and prevents the root hairs from drying out. All broken roots should be trimmed back to the healthy tissue so that healing will be more rapid.

CARELESSNESS SPOILS MANY

Many trees are prevented from grow ing by careless planting. The earth should be worked under the crown, for the presence of air will kill the young root hairs. The exclusion of air may be effected by raising and lowering the tree after covering the roots with two or three inches of dirt. When the hole is half filled and again when nearly A single dandelion has been known to full, the soil should be thoroughly tamped with the heels. Trees thus planted are almost certain to start to

After the trees are planted they should be headed, says Mr. Merrill. If it is a one year tree this will merely consist of removing the top of the straight whip to the height decided for soil, packing it with the foot. If a the head. A low or medium headed tree is preferred, as trees thus headed usually suffer less from winds and sun scald, and the orchard operationspruning, spraying, and harvestingcost correspondingly less than on high trees. If headed too low the limbs are forced out too close together and the trees develop serious crotches in later years. For low heading, 18 inches is a proper height and for high heading 24 inches.

For the two year old trees it would be impossible to form heads as they have been headed in the nursery. The limbs should be pruned so as to have three to five of the strongest and best shoots from which to develop the scaffold branches which should be evenly distributed about the trunk. These should be headed back one-half to onethird their length, preferably to an outside bud, so as to encourage the development of a spreading tree.

These are the proper distances for setting out various kinds of fruit trees: apples from 30 to 40 feet apart; pears, 20 to 30 feet; peaches and plums, 15 to 20 feet; cherries, 15 to 25 feet; apricots, 20 to 30 feet; quinces, 8 to 12 feet.

Fred C. Winship Tells of Experience in Country Gentleman

Fred C. Winship, instructor in the Garden" in a recent number of the Country Gentleman.

Professor Winship tells of his exin Manhattan. A feature of this article is a summary of receipts and expenses, including charge for Mr. Winship's own labor. The garden showed a financial profit in addition to benefit to health.

DISCUSSES INSTITUTIONAL WORK AT NEBRASKA MEETING

Miss Nola Treat Makes Addresses Before Vocational Conference in Lincoln

Miss Nola Treat, assistant professor of domestic science and director of the cafeteria in the Kansas State Agricultural college, addressed the vocational conference at the University of Nebraska at Lincoln Tuesday and Wednesday. Miss Treat spoke on the subjects, "Institutional Opportunities supplied in the form of well rotted may be filled underneath with lime for College Women" and "The Quali-

BEES NEED SPRING CARE

DEVELOP STRONG COLONY NOW TO ISSUE HONEY HARVEST

Give Insects Plenty of Room to Rear Broods-Protect Hives From Sudden Changes of Temperature-Suggestions From Entomologist

It is essential to have a good strong colony of bees in the spring to insure a good honey harvest, asserts Dr. J. H. Merrill, assistant entomologist, Kansas State Agricultural college. Brood rearing begins before or soon after the new supplies are brought to the hive. The new bees increase the capacity of the colony for brood rearing, thus bringing about a rapid growth of the colony.

"It is instinctive for the bees to increase their brood at this season of the year and the beekeeper, so far as possible, should make conditions favorable for them," says Doctor Merrill. "He should see that they have plenty of room for brood rearing, abundance of stores, and protection. If the bees have been wintered in a cellar, they will not normally begin brood rearing as early as those wintered out of doors. When they are brought out they may or may not be placed on their old stands. If they begin to roam the fields as soon as they are brought out, many of them will be lost. To prevent this, bring them out at night or on a cloudy or chilly day."

INCREASE WILL BE RAPID

Bees which have wintered successfully out of doors and have plenty of honey in the hives will rapidly increase the size of the colony, points out Doctor Merrill. A full 10-frame Langstroth hive will not ordinarily be too large at this time. The increase may even be so rapid that it will be necessary to place another hive body on the first. The bees need plenty of room at this time.

During brood rearing vast quantities of food are consumed and if the food supply is insufficient, brood rearing will be checked. Even though the bees may bring in nectar at this time, they need it all for brood rearing and will not store much surplus. If they have not enough food, feed them. A sirup made of one half sugar and one half water or even thicker than this may be used. This sirup should be fed warm to the bees.

"Hives should be protected from sudden changes of temperature, as the temperature of the brood must be kept nearly at human blood heat," says . Doctor Merrill. "If the bees are well protected they can conserve their muscular activities and will build up much faster. Hives which have been brought out from the cellar should be protected with paper wrapping or mats to prevent chilling of the brood.

CLIP WINGS OF QUEEN

"The hives should be opened on some warm day and given a thorough cleaning. It is well at this time to clip the wings of the queen so that she cannot emerge with the swarm. Clipping one wing will prevent her flying English language in the Kansas State but if both wings on the same side are Agricultural college, is author of an clipped, it will be easier to distinguish interesting article on "A Profitable her from the other bees at future examinations of the brood. If colonies are found without any brood, it usually means that they are queenless perience in handling a small garden and these should be united with colonies which possess queens. This may be done by placing the queenless colony on top of the one with a queen.

"This heavy brood rearing should go on for 6 to 8 weeks before the surplus honey flow. If the colony is given plenty of room in which to rear brood, has plenty of stores, and is well protected at this period, the result should be a strong colony capable of storing a large amount of surplus honey."

Studies of American horses from the time they leave Atlantic seaports until they arrive in the war zone and of how they are cared for and are standing war service will be made by Dr. C. J. Marshall, Pennsylvania state veterinarian, who has sailed from New York for Europe.

Volume 42

Kansas State Agricultural College, Manhattan, Saturday, April 1, 1916

Number 25

EXPERIMENTS GIVE INFORMATION FOR EVERY PART OF STATE

Five Year Tests Made in Co-operation with Farmers Show Best Varieties for Various Sections and Soils of Kansas

Tests conducted by the agronomy department of the Kansas State Agricultural college which cover a period of five years will prove valuable to Kansas farmers in determining the varieties of corn best suited to individual sections of the state.

"No other crop is influenced so much by soil and climatic conditions as corn," says B. S. Wilson, assistant in do half your season's cultivating becoöperative experiments. "Because of the radical variation in soil and climate in Kansas, the results obtained at the Kansas State Agricultural college or the various substations may not apply to conditions in other parts of the state. Experiments show that the variety most commonly grown in a section is not always the best one, nor is the variety that does well in eastern Kansas always the one to grow in central Kansas. Varieties known to limited sections of the state have been tested and found to be adapted to a much larger area and to outyield many of the standard varieties."

TWENTY-THREE VARIETIES TRIED

In order to obtain information regarding the varieties of corn best adapted to the various sections of the state and the different soil types therein, the agronomy department is cooperating with farmers in every part of the state in conducting variety tests. This work has been under way since 1911. In 1915 146 farmers in 61 counties in Kansas conducted variety tests of corn. Twenty-three different varieties were included in the work.

In northeastern Kansas the Boone county white, Reid's yellow dent, and Hiawatha yellow dent did well. The Shawnee white gave promise of being a superior variety for growing in that part of the state.

In southeastern Kansas the commercial white made the best average yield for the more fertile types of soil, while the pride of Saline proved to be best adapted for the uplands. Freed's white dent made a good comparative showing on very thin soil types in that part of the state.

In central Kansas, pride of Saline, Iowa silvermine, and Kansas sunflower made the usual comparatively high average yields, although because of exceptionally favorable conditions larger growing varieties outyielded them in some of the tests.

For western Kansas Freed's white dent, Colby, and Sherrod's white dent | C. A. Scott, state forester, in an agriproved to be superior varieties. The latter varieties are best adapted to the western one-fifth of the state, while Freed's is one of the best varieties for west central Kansas.

COLLEGE EXPERTS TO GIVE SUMMER WORK AT HASKELL

Federal Government Secures Teachers for

Indian School Institute H. B. Peairs, who has charge of the Indian schools under the federal department of the interior, was at the Kansas State Agricultural college recently to consult with Dr. H. J. Waters, president, and E. C. Johnson, dean of the extension division, in regard to a summer training school to be conducted at Haskell institute, Lawrence, for all teachers in Indian schools in

the great plains region. Arrangements have been made whereby the specialists in the extension division will give the agricultural work during the two weeks of the school. Courses will be offered in agriculture, dairying, animal husbandry, poultry,

WHAT CORN TO GROW by the specialists in home economics WILL STAND BY MILO in the extension division.

President Waters will lecture at the institute June 21 and 22. Other college speakers will be A. S. Neale, H. J. Bower, G. E. Thompson, Ross M. Sherwood, George O. Greene, Miss Frances Brown, Miss Winifred Fortney, and Miss Marion Broughten.

KILL THE WEEDS, THEN DO YOUR CORN PLANTING

Good Start Is Big Factor in Season's Yield Points Out Specialist in Crops

"Kill two crops of weeds before planting corn, is a good rule, or in preference to the other sorghums when the language of the practical farmer, fore you plant," said G. E. Thompson, specialist in crops in the division of more than 20 tests made at the Garof extension of the Kansas State Agri- den City and Tribune stations in 1915, cultural college.

"Don't be in a hurry to plant your corn," continued Mr. Thompson. "A good start is an important factor in the final yield of any crop. Corn yielded 46.6 bushels of grain and 4,700 planted early on poorly prepared pounds of fodder. In the same test ground often makes an irregular white milo produced 35.5 bushels of stand, grows slowly, is injured by weeds, and at the close of the season makes a light yield, while seed from whitehulled white kafir produced 32.8 the same lot planted after the ground bushels of grain and 5,700 pounds of is well warmed grows more rapidly, fodder. Two strains of African kafir is not so easily choked back by weeds, and makes a larger yield.

"The importance of killing one or two crops of weeds before planting is seldom realized. It is a surprising pounds of fodder. Schrock kafir, in fact that an ordinary sunflower uses the same comparison, yielded 13.9 more moisture during a season's bushels of grain and 6,720 pounds of growth than is used by an ordinary stalk of corn. Likewise in producing a pound of dry material a Russian thistle uses considerably more moisture than is used by a kafir plant in producing a pound of dry matter. Pigweed, redroot, smartweed and many other weeds are also very liberal in using the water supply intended for the growing crops.

"It is not only because of the water used that weeds injure crops but also because they use plant food which has been dissolved in the soil and which should be used by the useful plants. The shading effect of rapidly growing weeds likewise injures the young

WHAT ARE ESSENTIALS IN PLANTING TREES

State Forester Discusses Problem in New Agricultural Bulletin-Prepare Ground with Care

Freshness and vigor of stock, proper planting in a congenial soil, conservaprotection from injury from live stock and insect pests are essentials to success in tree planting as set forth by is available for free distribution.

"The difficulty that many tree planters experience in growing evergreen trees is due to the dead or dying condition in which the stock is received. All danger of such injury is easily prevented if the roots are puddled as soon as the trees are dug in the nursery and again when they are unpacked to be planted. After the trees are received they should be kept in a cool shaded place or be heeled in. A for planting trees.

"The preparation of the ground for tree planting is, next to the selection of the species for planting, the most important step in successful tree growing. Trees cannot grow unless there is sufficient moisture in the soil to keep them in a thrifty condition. The and horticulture. The advanced work wide and twice as deep as the roots in cooking and sewing will be given require in their natural position."

FARMERS OF WESTERN KANSAS PRE-FER IT AMONG GRAIN SORGHUMS

Dwarf Yellow Variety Proves Superior in Extensive Tests at Garden City Station-Consider Carefully Before Planting Corn

Milo will continue to be the standard grain sorghum crop of western Kansas, according to G. E. Thompson, specialist in crops in the extension division, Kansas State Agricultural college.

"Farmers will stand by milo in they desire a grain crop," states this authority, "and the experiment station results will bear them out. Out dwarf yellow milo proved itself superior to other grain sorghums."

At the Garden City experiment station in 1915 dwarf yellow milo grain and 4,970 pounds of fodder. In the same test at Garden City last year were also tried out, one of which produced 18.5 bushels of grain and 5,760 pounds of fodder, and the second strain 20.8 bushels of grain and 7,830

SCHROCK KAFIR NOT SUPERIOR

"The Schrock variety is being given considerable publicity by several seedmen," says Mr. Thompson, "who have been selling seed at 20 cents a pound. As grown on our experiment plots, Schrock kafir has not shown itself to be superior to the standard sorghums. When farmers want to combine a forage and grain crop many will plant kafir. It is much more leafy and the leaves do not fall off when the plant ripens, as do milo leaves."

Feterita last year produced 30.5 bushels of grain and 4,990 pounds of fodder at the Garden City station. The season was too cool, however, for feterita to make its best growth. In wet seasons like that of 1915 feterita and employs a great many men. shows disadvantages not apparent in ber of suckers or branches from the sides of the stalk.

"Corn was a good crop last year, tion of moisture by cultivation, and but before planting corn extensively in western Kansas people should consider what crop will be the greatest money maker for a period of five or 10 years and then plant the crop which cultural experiment station bulletin experience has taught is the most profon "Trees of Kansas." The bulletin itable. In most cases the choice will fall upon milo," says Mr. Thompson.

TEACH COUNTRY CHILD TO CO-OPERATE IN PLAY

It Will Help Him in His Later Busines and Social Life, Says Otis E. Hall -Apparatus Costs Little

Running a race with another fellow when somebody is watching his efforts is more fun for a boy than chasing a cow over a pasture. Play with a mocloudy or damp day is the best time tive behind it is one of the greatest needs of the country child, asserts Otis E. Hall, superintendent of boys' and girls' clubs, division of extension, Kansas State Agricultural college.

"Fewer than 10 per cent of the rural schools of Kansas have any playground apparatus, and none have leadership in their play," says Mr. only way to supply this moisture is to Hall. "In the use of playground aphave it in the ground when the trees paratus and the playing of organized are planted. In planting trees the games the child becomes less selfholes should be dug fully twice as centered and learns how to cooperate importance to the country child whose admission.

social life is necessarily somewhat MAKE IT LOOK LIKE NEW limited. Often he finds himself poorly prepared to meet a situation where a number of persons are concerned. When he grows up, he finds he has worked individually so long that it is hard to adjust himself to a group.

"The child who plays hard and plays well usually reaches maturity with all his faculties alert, and unexpected situations in his business and social life are not so likely to catch him off guard as they are the child whose play life has been neglected.

"Simple playground apparatus is not expensive and any teacher who really wants to, can be a playground leader. The following list of apparatus shows how cheaply a small playground may be equipped: sand box, \$1; swings, \$2 to \$15; teeter board. \$1.65; indoor baseball, \$2; basketball goals, and backstops, \$10: sliding board, \$2.25; horizontal bar and frame, \$2.50; merry-go-round, \$5; baseball outfit, \$15; croquet set, \$1.50. Horseshoes for quoits can be supplied from the children's homes."

AGRONOMY GRADUATES GET GOOD POSITIONS

Young Men Enter Work of Experiment Stations and Service of Commercial Firms

F. L. Fleming, who has been taking graduate work in agronomy, has just accepted a position with the University of Wyoming as superintendent of one of the branch experiment stations.

John L. Bayles, who completed work for his degree in agronomy last December, has been appointed assistant in crops at the Garden City Branch Experiment station in this state. He will be interested principally in the breeding and development of varieties of dwarf milo and dwarf kafir adapted to southwestern Kansas conditions.

Four men who completed the agronomy course at the end of the winter term but who will not receive their degrees until next June, have secured positions. J. R. Mason and R. G. Rodewald have secured positions with the Great Western Sugar company at Denver. They will serve in the capacity of agricultural advisers for this company. The opportunity for advancement in this field is excellent, as the Great Western Sugar Beet company has a large number of factories

W. E. Lyness, who has completed dry seasons. It ripens unevenly and his course in agronomy, has secured a tends to throw out an excessive num- position with the office of dry land agriculture, United States department of agriculture, and will be located at the Akron (Col.) Experiment station. Mr. Lyness will study soil problems. R. J. Hanna has accepted a position with the International Harvester company of Chicago.

ORCHESTRA WILL GIVE CONCERT MONDAY NIGHT

Brilliant Program Has Been Arranged for Annual Musical Event-Miss Carley to Be Soloist

The college orchestra will give its seventh annual concert Monday at the auditorium.

The orchestra has a membership of about 40 players and has all the instruments of the large symphony orchestras, including oboe, harp, and French horns.

Prof. R. H. Brown, director of the orchestra, has arranged an attractive

Miss May Carley of the department of music, will be the soloist. She will sing an aria from "Samson and Delilah" with orchestra and a group of songs with Miss Mildred Waugh at the piano.

The department of music is trying out an innovation this year in giving as many concerts and recitals as possible, free of charge, and this concert by the orchestra will be one of those with his fellows. This is of special for which there will be no charge for

CLEAN UP YOUR OLD FURNITURE IN THE SPRINGTIME

Woodwork Expert Tells Methods of Renovation-Only a Little Money, Time, and Care Are Necessary What Finish to Choose

Old furniture looks shabby in the spring when almost everything else is resh and clean, but it can be made like new with the expenditure of a little time and money, according to J. T. Parker, assistant in woodwork in the Kansas State Agricultural college.

First the old finish must be taken off the furniture, points out Mr. Parker. This may be done with a varnish remover which may be purchased at a hardware store. Two quarts will remove the varnish from all the furniture in the average living room.

This remover should be applied with a brush or a cloth and allowed to stand for a few minutes. It must then be rubbed or scraped off. After this the scraper should be used until the wood is reached because a varnish will not take a stain.

If the wood is an open grain piece, such as chestnut, walnut, or oak, a filler must be used to make a smooth surface. This may be bought or prepared at home. The formula for the preparation is as follows: one pound of corn starch and three-fourths of a pint of boiled linseed oil or turpentine, colored with burnt umber or lamp-

HOW TO APPLY FILLER

A filler will color the wood slightly, but if a dark finish is wanted it is better to stain the wood before the filler is applied. The filler should be rubbed on the furniture and allowed to stand 15 minutes. Then all the surplus filler should be removed. The wood that is not open grain, such as cypress, maple, and pine, does not need a filler.

After the stain and the filler have been applied the wood may be covered with a floor or furniture varnish or a wax. If a wax finish is desired the stain should be put on and allowed to stand until the next day, when the wax or varnish may be applied. Wax is the preferable finish since it does not gather up the dust particles so readily as the varnish and is more easily applied. It does not scratch so easily and if it is scratched more wax may be easily added and the polish secured again.

The wax should be applied sparingly with a soft woolen cloth and allowed to stand from five to 10 minutes. After this it should be rubbed vigorously to give it a polish. Two coats of wax are advised since it makes a much better finish. The wax should not be allowed to stand too long before it is polished or it will show the slightest finger

TWO COATS OF VARNISH

If a varnish is desired, it should be put on and allowed to stand two days so that it will dry properly. Then it should be rubbed with very fine sand paper to smooth the surface. A second coat of varnish should now beadded and the furniture is as good as

For ordinary furniture the golden oak, the cathedral oak, the early English, or the mission wood dyes are the best to use. Any of them make a more tasteful finish than the mahogany or the red and green wood dyes.

With newly finished furniture, a freshly varnished floor, a tastefully selected rug, cool cretonne curtains and a few comfortable cushions the living room is a new place in which tospend the hot summer day.

The average cost of hauling produce from farms to shipping points in the United States as a whole ranges from 7 to 44 cents per 100 pounds, with an average of 11 cents.-Dr. Clyde L. King.

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SATURDAY, APRIL 1, 1916

A job often hunts a man, and many men are mortally afraid it will catch them.

Blessings on the little man who is always assuring us that there will be an early spring.

When anybody writes a good book, sooner or later some small town library board will condemn it as immoral. Which suggests that the converse is true-you never heard anyone speak of the esteemed Harold Bell Wright as an immoral writer, did you?

The National Wholesale Liquor Dealers' association says that prohibition would cause the farmer to lose \$200,000,000 a year, agricultural products of that value being used in making alcoholic beverages. Evidently the association figures that under prohibition the farmer would throw all these products away. It has lots of confidence in the farmer's sense.

AN INNOVATION-BUT A GOOD ONE

The Latin department of the University of Wisconsin has started a real innovation by writing a series of articles, for newspaper publication, on it is spring fever. Dr. W. A. Sawyer, the value of studying Latin. Twenty | secretary of the California state board would have had mental dyspepsia for a month.

Nowadays, however, Latin is simply getting into line with other subjects of study. The student wants to know, as he has a right to know, what use any subject that he studies will be to him. And he sees at once the fallacy in your argument if you tell him that George Washington or Daniel Webster or Nathaniel Hawthorne studied this or that, "and look how successful they were." You've got to get down to pertinent facts with the student of to-

Nor is this a bad thing for the teacher. It clarifies his vision wonderfully to pick out and state definitely the points in favor of the subject he is teaching. Sometimes he may be led to revise his methods and emphasis completely when he sees what the real purpose of his subject is.

ONE? NO. FIFTEEN

Most of us were brought up with the idea that there was only one national park. Didn't the old geography-that shield for Diamond Dick and the other heroes of youth-say so? If it didn't say so, wouldn't we have found it out, even in spite of Diamond Dick and his companions?

But now comes the United States department of the interior and tells us there are 15, scattered over 12 states.

which we have all known about, is the largest, with 3,348 acres, and from that point the size gradually diminishes until the Hot Springs park in Arkansas, with but one and one half square miles is reached.

All this should be consolation for anybody who regrets the impracticability of getting over to Europe. A trip to all the national parks-the one we learned about in geography and the 14 we didn't—certainly should be worth

THE WONDERERS

The opening of a new college term always brings to light two classes of students-those who know what they want and those who don't. In a student body those who know what they want form the larger group, because a student body is always a picked assemblage, the inefficient having largely dropped out before reaching college

Those who don't know what they want, however, are always present to some extent, and they are always interesting-they would make good subjects for the cartoonist's pen or the humorist's typewriter. They spend most of their time in wondering-wondering what will be offered in this subject or that, wondering whether it will be hot in afternoon classes in the spring, wondering whether they'll have to do much library reading if they take Professor So-and-So's work. They can do more wondering in an hour than the average man does in a week, and one can hardly understand how they can keep enough subjects on hand to wonder about. When they do run out of wondering, they ask questions-they ask the professor of English whether they'd better take stock judging or calculus, or the professor of mathematics how much reading one has to do in history. It would never do for them to ask a man anything about his own subject—they might find out something. When they finally decide what they will take for the term, the chances are that in a week they'll be around to ask the authorities if they can't change to something else.

Of course, the wonderers are not confined to colleges. (It is true they ought to be confined, but not in a college.) They're found everywhere-in business, in professional life, in clubs, in homes. It is an accident when they do anything decisive. They add to the burden of life sometimes-to the gayety of humorous literature always.

SPRING FEVER

There is one disease which in our hearts we really all enjoy contracting; years ago such a proceeding would of health, assures us it is not a dishave been unheard of. To write about ease at all. But to believe him would generally have settled on a fairly prof-Latin for a newspaper! Unspeakable! be to rob this malady of its innate itable basis and now comes something afternoon in company with Mr. Jacob The white haired professor of Latin charm. One never has to apologize else. for humoring a disease, either to one's self or to others, and in such a guise spring fever comes nearest of all mundane agencies to realizing Turgeniev's conception of heaven-"remorseless laziness."

Well, it is highly contagious, is it not? And it leaves one incapacitated. What if the medical fraternity has so far failed to isolate the germ? Every one knows what the latter will resemble when discovered--a baseball walking on golf sticks, with long, slender feelers jointed like fishing rods, and tennis rackets for wings. Naturally, it is a flying germ or it could hardly fill the air as it does on such days as yesterday. One sniffs it in with the sunlight, and it comes to rest in the brain and the heart, producing as its never failing symptoms a distaste for such sordid objects of pursuit as fame and fortune, an unconquerable weariness with the formal world, a desire to recline at full length under the heavens, all finally resolving themselves into a lotus-fed ennui which can only be worked off out-of-doors.

Yet Doctor Sawyer calls this simply "the call of the wild" (if only Jack conditions, but the farmer gets cars London could exact a royalty for the use of that term!) and goes on to say:

a monkey or from Adam and Eve, who use on short notice, laying it down roamed about the Garden of Eden, like a carpet at the sound of a motor there is that inherent longing to play horn in distress. For the nominal

appears. It is certain that our fore- no checks accepted, -the car in quesfathers, whether man or monkey, used tion can shoot by instead of bogging to celebrate the opening of spring by to the hubs. Then the farmer's son lazily basking in the sun, and it is wise which we call spring fever."

A call, a longing, indeed! But it is (Del.) Every Evening. reassuring to know that we have inherited a tendency to it.-New York

WAR PRICES FOR IMPLEMENTS

War prices for wheat helped a lot in the fall of 1914, but war prices for cotton made a lot of trouble for the on Friday afternoon.

gathers up the magic carpet and stores that longing on our part to do like- it against the passing of the next transcontinental tourist. - Wilmington

A QUARTER CENTURY AGO

Items from The Industrialist of April 4, 1891 The students' payroll for March amounted to \$562.56.

The Rev. and Mrs. Pendleton Brooke of Manhattan were interested visitors

Better Rural Schools

W. D. Ross, State Superintendent of Public Instruction

Aside from all question of fair play and a square deal for our country boys and girls, we need better rural schools particularly for two reasons: first, that the removal of many of our most intelligent and progressive people from the country to the town for educational advantages may be checked; and, second, that when they do remain on the farm the education that their children receive will be such as to make those young people recognize the dignity and importance of the business of farming and train them for efficiency in it.

And how may such schools be secured? First of all, it goes without saying, by spending more money upon them. And second, by recognizing their importance and possibilities and insisting on a more effective administration of them, not in the interest of some personal or local consideration but for the common good.

Where density of the population and character of the topography permit, complete and extensive consolidation is the ideal solution. But where this may not seem to be feasible a great advance could be scored if schools could be combined so that each would have two teachers. Then by having the common branches taught in these and by taking advantage of the present rural high school law for the more advanced academic subjects, and especially for agriculture, manual training, domestic art, and domestic science, country people could at home give their children approximately as good an education as the cities can offer and under more desirable conditions, for it would be obtained amidst nature's own great laboratory and in God's free air and bright sunshine.

Especially would this plan be effective if these high schools were organized on the junior-senior plan. For then with only the first six grades in the elementary schools the smaller children would not have far to go and two teachers could handle three grades each satisfactorily, thus overcoming the irremediable weakness of the present country school-twenty-four to thirty-two classes a day for one teacher. On the other hand, while still remaining at home, children from the sixth grade to the twelfth would be able to go farther for the sake of the high school advantages and would have the benefit of the wider opportunities and the closer supervision which the high school would offer.

cotton states. Prices of farm products

Sharp advances in the price of all farm machinery are coming. One manufacturer of farm implements says that the cost of bar steel has advanced 67 per cent, bar iron 110, pig iron 45, sheet steel 96, naphtha 134, scrap iron 45, bolts 85, rivets 75, nuts 80, cotton duck 60, fuel oil 78, high speed tool steel 500, coke 30, and borax 45 per

All these things enter into the cost of manufacturing farm implements and we may expect soon to see marked increase in prices. Stocks of raw material laid in at old prices are about exhausted.

It really will pay to round up, patch up, and cover up the farm implements and thus lengthen their life of usefulness. When machinery prices get on a high basis, they will come down very slowly.-Oklahoma Farmer.

DOLLARS FROM A MUDHOLE

A farmer in a certain southern state is raising a unique crop from a mudhole in front of his farm. The soft spot is impassable for autos for several days after a rain, under ordinary across and ekes out the egg money by renting strips of canvas to the motor-"Whether man is descended from ist. He keeps his canvas ready for

The Rev. Mr. Martin, lately of England, was a pleasant caller on Friday Winne of the city.

Operations on farm and garden are delayed by the cold, wet weather, but a beginning will probably be made next week.

Professor Failyer's name appears on the Citizens' ticket as a candidate for councilman from the third ward. At the risk of "taking sides," THE INDUSTRIALIST endorses this candi-

The College Symposium publishers about 450 subscriptions for their book. The material is being gathered as rapidly as possible, about the latest acquisition in that line being photographs of college officers in groups taken on Monday.

Professor Popenoe and Assistant Swingle are on the program for the next meeting of the Manhattan Horticultural society to be held in horticultural hall on Thursday afternoon next, with papers on "Spraying Apparatus for Orchard and Vineyard" and "Common Diseases of American Grapes."

The state treasurer has received for the college the second installment, \$16,000, under the act of congress approved August 30 last, granting aid to agricultural colleges. This enables the college to make much needed im-It is true that the Yellowstone park, and bask in the sun when spring first consideration of \$1,—silver or paper, ment as contemplated for months past. the sugar bowl.—Wichita Eagle.

APRIL Ralph Waldo Emerson

The April winds are magical, And thrill our tuneful frames; The garden-walks are passional To bachelors and dames. The hedge is gemmed with diamonds The air with Cupids full, The clues of fairy Rosamonds Guide lovers to the pool. Each dimple in the water, Each leaf that shades the rock, Can cozen, pique, and flatter, Can parley and provoke. Goodfellow, Puck, and goblins Know more than any book; Down with your doleful problems, And court the sunny brook. The south winds are quick-witted, The schools are sad and slow, The masters quite omitted The lore we care to know.

SUNFLOWERS

QUERY: How long can a joke column be maintained without casting slurs upon the women?

If it were not for Efficiency and Preparedness, what would the poor advertisers do for leads?

All male men guilty of participation in pink teas should be sentenced to thirty days' hard hemstitching.

There be high brows and lowbrows; but not enough of either, thank goodness, to interfere seriously with you and me.

HEALTH HINT: Don't sit near a "movie" fan who reads the "movie" magazines and knows how everything is going to turn out.

From the talk we have heard at some of the movie shows, there must be some people who don't admit that actions speak louder than words.

> SPRING SADNESS The sky is blue And we are too, For Wifey's new Hat bill is due.

The husband of Mrs. Gadding A. Bout, who unexpectedly found her at home last Thursday evening when he came home to get supper, is not expected to recover.

Undoubtedly the main reason for that \$40,000,000 film company combine is the fact that it will make possible an issue of bonds sufficient to cover Charlie Chaplin's 1917 salary.

QUITE SO-IT ARE

The Kansas City Home Telephone Directory is published three times a year, and are known as the February, June, and October issues.-Kansas City Telephone Directory.

LUCILE'S NEW BONNET When first it flashed upon my view My consciousness began to skid, broke my neck and wrenched my

In comprehending Lucile's lid.

OUR GREATEST ENEMY The greatest enemy the United States

of America has is sugar. There was are hard at work, and have taken a day when the American father withered his child with a look when the child took a second spoonful of sugar. Part of the reprimand was due to a feeling of thrift and part of it was based in a homely therapeutic knowledge. The citizenry of the United States at the time of the Civil war was long, spare, sinewy, long-winded and steady-hearted. Today an alarming part of it is fat, flabby, puffy, and as soft as whipped cream. Sugar is doing most of it. The single citizen in America in 1865 consumed every year 18 pounds of sugar. In 1900 he had increased his annual consumption to 58 pounds. He is now storing away in his system every year 89 pounds. We are a small part of the world so far as population is concerned, but we eat up 21 per cent of the world's entire sugar supply every year. Sugar means softness. While we are preparing, it provements in apparatus and equip- might be a good idea to put the lid on

Harold Gaden, '14, is farming near Seiling, Okla.

Frank Howe, '14, is farming not far from Wymore, Nebr. Ward Gates, '14, is on his father's

farm near Asherville. W. A. Bright, '15, is a practicing

veterinarian at Solomon.

C. F. Neerman, '14, is managing a newspaper in Tulsa, Okla.

L. C. Baker, '13, since his graduation has been farming near Fredonia. Albert Norlin, '13, is running a gen-

eral merchandise store in McCracken. Harold Goble, '15, is working in the Farmers' State bank in Clay Center.

Frank Graham, '13, is working for the Westinghouse Electric company, Wilkinsburg, Pa.

Roy Phillips, '14, is connected with the dairy department of the Washington State college at Pullman.

John Davidson, '13, has charge of an orange ranch near Orlando, Fla. Recently he spent his vacation at Palm

Miss Laura Falkenrich, '15, principal of the St. George schools, was in Manhattan recently to spend the week end with her parents.

T. R. Bartlett, '12, has been city engineer of Iola for the past two years. He has announced the fact that he will be a candidate for re-election.

Alvertus Salkeld, '09, is now located in Detroit, Mich., with the construction department of the Detroit Edison company. His home address is 21 Allen-

George L. Hoffman, '08, visited college recently. He has been in charge of the electrical work on the Arrow Rock dam in Idaho for the past three years. He will be located for the present at Hays, Kan.

Miss Julia Holmes, '12, visited college and the Lambda girls this week. She is returning to her home in Duarte, Cal. She reports her brother, George Holmes, '11, as prospering in Monrovia, Cal. He is secretary-treasurer of a motion picture company.

N. M. Hutchinson, '14, is instructor Ohio. Professor Lyman, who is head cally no disturbance to the rest of the of the department, is going away on a house. leave of absence next year and Mr. Hutchinson will have charge of the DON'T PUT MILK ROOM department in his absence.

Edwin McDonald, '12, attended college winter term to take some work in physics and German. Next year he expects to study medicine in Washington university at St. Louis. Mrs. Frances (Case) McDonald, '12, was in Manhattan until two weeks ago, when she and her daughter left for St. Joseph.

sister, Miss Ada Rice, '95, the past in the Kansas State Agricultural colweek. He was on his way home from lege. Windows are essential in a attending the annual session of the Northwest Kansas Methodist conference, of which he is a member. He is stationed at Kensington. He has just finished a course with the Chicago Seminar of Sciences for the degree of doctor of philosophy.

MARRIAGES

MILLS-ZIEGLER

Miss Lucile Mills, a former student in the college, and Mr. Harry Millard Ziegler, '14, were married Tuesday afternoon at the home of the bride's parents, Mr. and Mrs. Arthur Mills, in Topeka. The Rev. Stephen S. Estey, pastor of the First Presbyterian church, officiated.

Mr. and Mrs. Ziegler will make their home in Springfield, Ohio, where Mr. Ziegler is managing editor of Farm and Fireside.

SUSTAINS KANSAS REPUTATION

B. H. Pugh, '92, won a silver loving Fla. In Miami, organizations of per- separator parts exposure to the sun. attacks by fungi.

sons from various states have been CATALPA WOOD FOR POST formed, whose members hold meetings to recount the advantages and glories of their respective states. Members of the Kansas society, at their meeting January 29, asserted that besides producing the best corn, wheat, etc., in the world, the Sunflower state produced also the best spellers. This resulted in a challenge from the Ohio

DON'T UPSET WHOLE HOUSE TO CLEAN IT

Modern Woman Looks After One Room at a Time—Here's the Method Up to Date

House cleaning is no longer a thing to be dreaded. If done systematically it becomes as easy as any other household task. To clean a house systematically, one must do it one room at a time, co-eds in the Kansas State Agricultural college are taught. This destroys the old custom of having the entire house upset at once, and the cleaning is more thorough than when done by the old method. The same general rules will apply to the cleaning of every room from cellar to garret.

First, all small articles, including pictures, should be dusted and taken from the room or put under cover. The lighter pieces of furniture should then be removed to another room. Such furniture as remains should be covered. The walls and ceiling should be dusted with a special brush provided for the purpose, or with a broom, covered with a soft cloth. The rugs should be taken outside and beaten or swept with wet bits of paper.

If the floor is of hard wood, it should be brushed with soft brush or string mop. This should be done with long, steady strokes, from the corners to the center of the room. The dust should be carried out immediately. A cedar mop or string mop, wet with kerosene, is then used, still working from the corners to the center of the

After the dust settles, dust all exposed surfaces. The woodwork may be cleaned with a soft cloth, tepid water and a small amount of soap solution. The covers may then be removed from the furniture and the polished surfaces cleaned with a velvet sponge wet in tepid water, and dried with a chamois skin. The rugs and small articles may then be replaced in dairy chemistry in the University of and the room is in order with practi-

INTO YOUR DAIRY BARN

A Lean-to Shed or a Separate Building Is Advisable—Have Plenty of Sanitary Equipment

milk room for the dairy farm should not be in the barn in which the milking is done. It is advisable to build a lean-to shed or an entirely separate building, according to O. E. The Rev. A. D. Rice, '92, visited his Reed, professor of dairy husbandry modern milk room, and adequate space should be allowed-12 by 14 feet is a good size to meet the requirements on the average farm.

Equipment necessary for a milk room consists of a cream separator, tank for cooling milk, wash vat for cleaning utensils, gasoline stove to furnish hot water, or boiler for scalding vessels, milk scale, record sheets on which the record of each cow is kept, and a Babcock tester.

The tank in which the milk or cream can. The water which is pumped by quite as durable. the windmill or the gasoline engine should be run through the tank and out through the overflow, into the connection with the cutting. To sestock watering tank. This system insures cool water for the milk, and allows the water to run into the stock tank at no additional expense of pumping.

rack on which to place the cans and A smooth stump with the slope all in separator parts after scalding. The one direction is desirable to avoid cup for being the best speller at an old rack should be built on the south side pockets which will hold rain or snow fashioned "spellin' bee" in Miami, of the house to give the utensils and water and which will thereby induce

IT IS DURABLE AS WELL AS PLEAS ING IN APPEARANCE

State Forester Recommends Growing Tree in Eastern Kansas Both for Building Fences and for General Repair Work on Farm

Catalpa trees furnish the most desirable posts on the market, in the opinion of C. A. Scott, Kansas state forester. "Catalpa wood is recognized as one

of the durable woods," says Mr. Scott. "In spite of its reputation for durability, some complaints have been received to the effect that the posts are short lived and not satisfactory. Investigations have shown, however, that the posts were set before they had been seasoned or that the trees were infected with fungi and the strength and durability of the wood were seriously impaired before the trees were

"When the trees are cut while they are in a perfectly healthy conditionwhatever their age-and the posts thoroughly seasoned before they are set, the wood is durable and satisfactory for fence post purposes. The wood is light, but strong enough to resist the required strain of the fence, and it holds staples satisfactorily. The posts are clean, smooth, pleasing in appearance, and easily handled.

IT'S USEFUL IN VEHICLES

"In general repair work on the farm, the catalpa is a serviceable wood. It has been used with entire satisfaction for tongues on all sorts of implements and vehicles, and for doubletrees, singletrees, and neck-

"The value of thoroughly seasoning the catalpa posts before setting cannot be overestimated. To air-dry posts and poles thoroughly will require from six to nine months, depending upon the season and also upon the size of

"The seasoning can be most quickly and satisfactorily accomplished by piling the posts in an open pile in alternating tiers of three and seven posts each. This order of piling admits of abundance of light and free circulation of air. The bark of the catalpa is thin and does not seriously interfere with the seasoning of the posts. It clings tightly to the seasoned wood and is not detrimental or objectionable to the post.

"The value of thoroughly seasoning posts or poles before setting them is that drying the wood increases its durability. Bacteria and fungi that cause decay can exist and develop only in a moist medium. Therefore if the wood is dried before it is set in the ground, the opportunity for fungi to attack it is greatly lessened."

CUT TREES WHEN THRIVING

Mr. Scott stated that a careful study of catalpa plantations indicated that the catalpa must be handled on a 16 or 18 year rotation. At this age the trees are large enough to cut three lengths of posts large enough for general fencing purposes. The trees do not reach their full growth or development at this age, but the risk of losing the crop by an attack of fungi is great, and the increased value of larger material is not worth the risk.

If the trees are cut while in a good, thrifty condition, the sprouts from the stumps will yield a second crop of posts in from 14 to 16 years, according to Mr. Scott. This second crop of posts will nearly equal the first cutting in number and value. They will is cooled may be built of concrete. It be straighter and freer from limbs should be a little higher than the milk than the posts of the first cutting, and

A second crop of posts from the stumps must always be considered in cure the best second growth, the trees should be cut in late winter or early spring. March is a desirable month. The stumps should be cut low so as to insure a sprout-growth from as near Outside the milk house should be a the surface of the ground as possible.

"The range of growing the catalpa on a commercial scale in Kansas is confined to the eastern half of the state," says Mr. Scott. "To draw a line defining the western limit of successful groves of catalpa, the line between Jewell and Smith counties projected south to the southern boundary of the state is a safe division. West of this line the catalpa can be grown successfully only in favored sites on low ground along the watercourses. Under no consideration should the catalpa be planted on high prairie land of western Kansas."

DRINK WATER FOR TONIC AND YOU WILL BE HAPPY

Use It at Meals and at Other Times, Advises College Physician, but Be Sure It's Pure

Water taken as a tonic assures a happy disposition, a clear complexion, a good appetite, and a liberal amount of "pep," in the opinion of Dr. R. T. Nichols, physician in the Kansas State Agricultural college.

"The average person does not drink enough water," says Doctor Nichols. "Water may be taken at any time by the average person without injury to the system. Old physicians have adtimes. Their theory was incorrect as no harm can result provided one does not wash down the food.

"Water stimulates the kidneys, the bowels, and the pores of the skin. A good digestive system is almost an assurance of perfect health. Pure water is a tonic for this system, and moreover is the best tonic a person can take.

"Ice water should not be drunk by the healthy person no matter how hot the day, for its temperature is too far below that of the body. An athlete should not drink water just before or after a contest. Water taken on an empty stomach cleans out the digestive tract and prepares these organs better to digest the food.

"There is such a thing as taking too much of nature's tonic. An excess of water overworks the excretory organs just as does an over-dose of prepared tonic.

"The source of tonic water should be tested several times a year. Although water is the best of tonics it may carry the worst of germs. Always be sure drinking water is pure."

KANSAS IS DISCARDING THE OLD ROLLER TOWEL

Housewives Are Adopting Sanitary Measure-What Materials to Use

The roller towel is rapidly disappearing in Kansas homes. It will soon be a thing of the past, asserts Miss Bertha E. Buxton, instructor in Agricultural college. It is being dislaundered. The individual towel is advocated.

"The roller towel is heavy and until the food is all grain. clumsy," says Miss Buxton. "The great advantage of the short towel is that when it is soiled it can be removed from the kitchen to the laundry bag. Not so with the roller towel. The soiled parts are rolled under from every member of the family to have a towel.

"Sugar and flour sacks make satisfactory dish towels. They are not only economical but neat and serviceable.

"The wise housewife uses Turkish towels in her bathroom. Huck and linen are good for the face. Cotton materials are not desirable because they do not absorb the water well. A combination of linen and cotton is recommended."

Dainty pinks, blues, and yellows are staple and will wash well, points out Miss Buxton. Handwork is attractive on guest towels. Touches of color add charm and individuality. The decorations must not interfere with the use of the towel. Tiny sprays of flowers in solid embroidery, initials, and scalloped, crocheted and tatted edges are pretty. Open work is not in good taste.

SQUABS FOR HOME MEAT

COLLEGE PROFESSOR TELLS OF HIS EXPERIENCE WITH FLOCK

Two Breeds-Homer and Carneau-Are monly Raised-Are Far Different from Ordinary Barn Pigeons-Suggestions as to Feeding

For home meat production, nothing will surpass the raising of squabs, according to P. J. Newman, assistant professor or chemistry in the Kansas State Agricultural college. Mr. Newman keeps a Carneau flock for his home use.

"Squabs make the most delicate dish that can be had," declares Mr. Newman. "Chicken does not compare with it; and squabs may be had the year around.

"The two breeds most generally raised are the Homer and the Carneau. The consensus is that the former breed is more vigorous than the latter and will multiply slightly more rapidly. The Carneau, however, are larger birds, have whiter meat, and are more quiet in disposition.

"These breeds are far different from the ordinary barn pigeons. The domesticated birds are more prolific. vised against drinking water at meal The squabs when killed and dressed at 24 to 28 days old weigh from 10 to 14 pounds a dozen, while those of the wild breeds weigh only from six to eight pounds. Also, the meat of the wild birds is inferior to that of the tame breeds in flavor and color."

THEY WON'T LEAVE HOME

If an adequate place is provided for a flock of domesticated birds they will not leave it, says Mr. Newman. This removes the common objection that pigeons are filthy to have around buildings.

It is estimated that it costs a dollar a pair per year to feed birds not allowed free range. A good pair should raise from seven to ten pairs of squabs each year. Squabs sell from \$4.50 to \$6.00 per dozen dressed, according to time of year. This leaves a good margin for profit, points out Mr. Newman. On the farm the cost of feed is reduced because there the birds gather almost all their food themselves. It is necessary to feed them some peas in addition, however.

HERE IS GOOD RATION

A good ration is: 25 per cent corn, 25 per cent kafir, 25 per cent wheat, 20 per cent peas, and 5 per cent millet and hemp. The peas are essential for rapidity of production.

"The young stock will mate when about four to six months old," says Mr. Newman. "They mate for life. Usually two eggs are laid. The incubation period is from 17 to 18 days. domestic science in the Kansas State The old birds feed the young from a secretion from the crop called pigeon placed by the short hand towel which milk. After 10 days grain is added. is more sanitary and more easily The young bird reaches down the beak of the old one for its food. Gradually the proportion of grain is increased

"In the breeding season, when the young are 10 to 14 days old, the parent birds build a new nest and incubate eggs there while feeding young birds in the old nest. When from 24 to 28 days old, or as soon as the pin time to time until the entire towel is feathers are long enough to pluck soiled. It is much more sanitary for easily, the squabs are ready for market."

KANSANS EXTEND WELCOME TO COMMUNITY FORUM PLAN

College Receives Many Calls for Speakers at New Type of Meeting

The community forum idea is growing rapidly in Kansas according to Walter Burr, director of the department of rural service in the division of college extension.

"The rural service department," says Mr. Burr, "is willing to help in any way possible. At times there have been more calls for speakers than could be filled. One or two men in a community must be interested and willing to give their time and money in backing such a project. The speakers at the forum meetings are mostly men and women from the Kansas State Agricultural college."

SOLVES POWER PROBLEM

GASOLINE ENGINE IS BIG HELP TO RURAL COMMUNITY

John C. Shutt Points Out Application of Power to Various Types of Work-Be Sure to Get Machine of Right Size

The gasoline engine offers the solution of the power problem in the rural communities as well as lightens the task of the housewife, according to John C. Shutt, assistant in steam and gas engines in Kansas State Agricultural college. Since in certain regions electric power is not available and windmills cannot always be depended apon, the gas engine offers the natural solution of power problem in the rural communities.

"The selection of a dependable gas engine will be easier," comments Mr. Shutt, "if the buyer knows the reputation of the engine and the guarantee offered by the manufacturer.

"The problem of obtaining an engine that not only will meet the needs of the present condition of the farm but will also take care of those arising in the future is one which requires much thought. The dealer is familiar with the capacity of each engine and knows the amount of work each can do. Any trustworthy firm is glad to assist the farmer in purchasing a machine that will satisfy him provided he states his needs."

The application of power to various kinds of work, Mr. Shutt points out, is almost unlimited. Aside from the general routine of farm work, power can be employed in doing the washing, pumping water, freezing ice cream, ironing clothes and generating electricity. Mr. Shutt warns against buying an engine that is too large or too small.

CRUDE OIL HAS ADVANTAGES

The engine should be adapted to the work at hand. The high speed machine is lighter in weight per horsepower and is better suited for portable and traction purposes. The medium and slower engines are heavier and are adapted for stationary work.

Most of the smaller types of machines are equipped for burning gasoline. Many of the operators whose experience is limited prefer gasoline to kerosene in the large engines because it offers fewer complications and is easier to manage. Crude or heavy oil engines which are giving for home consumption the plants are marked evidence of success are being built in sizes suitable for farm and three feet apart between the rows. use. This engine offers two special advantages over either the gasoline or the kerosene type-the fuel costs plants grow, or planted six to eight less and the electric ignition system inches deep. Where plenty of manure is entirely eliminated.

abounds," says Mr. Shutt, "it may this covered with soil. Over this the be the ideal fuel. The kind of engine roots are planted. No tips should be to buy and the fuel to be used must cut the first two years after setting. rest entirely with the conditions under In the third year a partial crop may which it is to be operated, the local ity and the peculiar likes and dislikes not extend more than five to six weeks. of the purchaser.

tionary engine is important. To place or onions-preferably beans-may be it on a solid foundation and cover it grown between the rows. This not with a good tight shed or house means only will allow clean cultivation but time and money well spent. The smaller sizes may be bolted or clamped to the floor or in case of an earth jure the asparagus plants. Asparagus floor may be secured by stakes driven tops should not be broken for two in the soil. The portable engines years. should be mounted on skids and should never be run unless level and well fastened.

TAKE CARE OF THE ENGINE

"Arrange to drive all the machinery from a line shaft belted direct to the engine. Also make provision for setting other machines which may be purchased in the future.

"An engine needs constant care. It is not best to wait until something goes wrong to begin the study and observation of the working parts. When in operation the engine should be watched and each part examined to see how its particular function is performed. The operator should become his own expert.

generally lost on the wear of the moving parts, and the difference is always more than made up in the cost of new pieces to place the worn out ones. It is not only poor economy but harmful to the engine to use an excess of oil in the cylinder. Too much oil causes carbon to collect in the combustion chamber, and if an excess is used on the bearings it flows out and gathers dirt and grit, which have a tendency to work into the bearings and between the moving parts.

"Above all, keep the engine clean. After a run the dirt and grit should be wiped off with a piece of waste or some old rags. A large proportion of engine troubles are traceable directly to dirty and gummed parts of the machine.

"The operator should always be patient when the engine fails to start. It will not refuse to start if all the conditions are favorable. Remember a machine never thinks-the thinking must be done for it."

ASPARAGUS WILL GROW IN MOST KANSAS SOILS

Prof. M. F. Ahearn Tells How to Grow Popular Vegetable-Plants Require Plenty of Food

Asparagus will grow in most Kansas soils sufficiently rich to meet the feeding habits of the plants, says M. F. Ahearn, associate professor of horticulture in the Kansas State Agricultural college. Desirable varieties of asparagus are palmetto, Columbian, and Conover's colossal.

"The ground for planting asparagus may be prepared either in the spring or fall. In fall preparation of the field well rotted manure should be plowed under the prospective asparagus garden. The subsequent steps of preparation are similar to preparing the ground for gardening.

"Asparagus is grown either from seeds or from one to two year old roots. The seeds are planted thick in the rows in a nursery bed, and when the plants have grown to the desired age, the roots are transplanted to the permanent field. For quick germination the seed is soaked and warmed before planting. One year old roots have given satisfactory results in

"The distance between the rows varies according to the purpose for which the asparagus is planted. If grown set 14 to 18 inches apart in the rows The roots are set either in a deep furrow, which is gradually filled as the can be applied a trench is made and "In localities where natural gas filled at the bottom with manure and be cut. This cutting season should

"During the first two years some "The question of locating the sta- annual crop such as beans, potatoes, will also bring an extra income provided extreme care is taken not to in-

"Asparagus may be grown either green or white according to the market demands or the personal preference of the grower. When white tips are desired the shoots are cut as soon as the tops break through the surface. When green tips are wanted they are allowed to grow several inches above the ground before they are cut."

BRITISH MAGAZINE RUNS SKETCH OF DEAN JARDINE

Article on College Man Forms Feature of **Current Tropical Life**

W. M. Jardine, dean of agriculture in the Kansas State Agricultural college, forms the subject of a page article in Tropicle Life, a well known of making a stand under adverse con-"The best grade of oil is always the agricultural magazine published in ditions. For grain purposes or hay of remarkable talent, and to his thorcheapest. It should not be considered London. Tropical Life is publishing production, however, when the entire economy to use an oil just because it a series of portraits and sketches of season is used for their growth, soy his force of leadership much of the can be comfortable if compelled to recan be bought for a few cents less than the leading agriculturists of the world. beans are the larger producer if rab-success is due.

CROP IS VALUABLE FOR FORAGE. SILAGE, AND SOIL IMPROVEMENT

Is Often Mixed with Corn or Sorghum or Bottom Lands of Eastern Kansas-Inferior to Alfalfa for Hay How to Grow Plant

Cowpeas are recommended as a forage crop for some portions of Kansas where alfalfa cannot be grown successfully, and as a silage crop when sown with corn or sorghum. The value of cowpeas as a soil improvement crop is well known.

"Cowpeas are adapted to a wide range of soils," says Ralph Kenney, assistant professor of farm crops in table in every kitchen," says Miss Re the Kansas State Agricultural college. "They will grow on almost any Kansas type when supplied with the necessary amount of moisture and given good culture. Cowpeas are best height for a table when a woman is 4 adapted to open, well drained soils of feet 7 inches tall is 27 inches. If the medium fertility, but will often grow housewife is 5 feet 5 inches tall, the good cultural methods. They are slightly more drouth resistant than 21 inches in the height of the table. corn.

BETTER THAN CORN ALONE

"When sown with corn or sorghum, cowpeas make a high quality of silage but not so when sown alone. The mixture is successful only on the best bottom lands of eastern Kansas. The yield of silage from corn or sorghum and cowpeas is about equal to that from corn alone. The silage from the mixture is much more nutritious than corn alone on account of the protein content of the cowpeas. When grown for this purpose the corn and cowpeas are mixed in equal portions by weight and drilled in rows the first week in June. The drill must be set to drill as fast as possible and the mixture of corn and cowpeas must be stirred in the drill box frequently to prevent uneven planting.'

Excellent hay may be obtained from cowpeas, if properly handled, points out Mr. Kenney, but the difficulty of harvesting and curing, the lower yield, and the woody stem make the crop less valuable for hay than alfalfa.

Cowpeas should not be cut for hay antil the first pods are ripe. If cut before this the plants will be watery and hard to cure. If cut later there will be a heavy loss of leaves and the stems will be woody. If the cowpeas are wanted for seed they should not be cut until most of the pods are ma-

UNCERTAIN CROP FOR SEED

In Kansas cowpeas are an uncertain seed crop on account of weather conditions. Every farmer can usually at about \$3 a bushel. They are serithe stored seed with carbon bisulphide.

Cowpeas make an excellent soil improvement crop. When used for this purpose they are best sown following nounced success, speaks volumes for wheat in a rotation of wheat and corn. The growth is plowed under the last of September. It is a profitable practice to pasture off the cowpeas partly, before plowing them under. As in feeding other legumes, however, there is danger of bloat. There is a remarkable increase in the yield of corn the following year as a result of growing the cowpeas.

"The rate of seeding depends on the method of seeding. Broadcasting requires approximately six pecks, drilling five pecks. In three-foot rows four pecks should be sown to the acre. Broadcasting is not practiced much now on account of the high price of the seed.

"Under Kansas conditions cowpeas are a better crop than soy beans for green manuring or with corn for silage or as a catch crop after wheat," says

the better grade. The money saved is MANY USES FOR COWPEAS bits do not seriously thin out the stand. Neither of these plants is attacked by chinch bugs."

IF TABLES ARE LOW, LOOK OUT FOR TEARS

Kitchen Equipment Should Be of Proper Height, Urges Miss Bartholomew It Makes for Efficiency

Backaches and worry; then tears! That is the order of things in kitchens where the tables are too low.

Sometimes the children are blamed but it isn't their fault. The trouble's with the table. It's a few inches lower than it should be, and the muscles of the back are strained.

"There is a correct height for every becca Bartholomew, assistant in domestic science in the Kansas State Agricultural college. "Experiments have been made which prove that the correct on worn out soils without inocula- kitchen table should be 301 inches high. tion. They will grow in poorly pre- In other words, for every 5 inches pared seedbeds but respond best to difference in a woman's height there should be a corresponding change of

"When the housekeeper measures her table and finds that it is too lowand most kitchen tables are too lowshe shouldn't feel that a new table is necessary. Wooden blocks with grooves in the center, which are used under bed legs in hospitals, can be used under the legs of a table to add height. If some one in the family is handy with the hammer and nails, a small platform can be built under the table. Drop tables are convenient, too. They hang up on the wall when not in use and are let down the correct distance when needed.

"The greatest argument for tables of correct height is that efficiency and cheer cannot exist in the kitchen with poor equipment. The work table is right height, the strain upon the muscles and back causes fatigue and distress."

WESBROOK IS COMMENDED BY CLAY CENTER PEOPLE

Dispatch-Republican Gives Praise to Professor of Music

The work of Prof. Arthur E. Wesbrook, professor of music in the Kansas State Agricultural college, is highly commended by the Clay Center Dispatch-Republican. Professor Wesbrook has trained in Clay Center a choral society which took part in the presentation of "Elijah" here a few weeks ago and which gave the same oratorio recently at Clay Center. Concerning the production the newspaper

The rendition of Mendelssohn's great raise enough seed, however, to supply oratorio, "Elijah," at the First Methohis own needs. Six to 10 bushels is dist church yesterday evening by the an average seed crop. Cowpeas sell Choral union was a decided success and reflected the greatest credit upon ously attacked by the cowpea weevil, all the participants. Few communities which may be controlled by treating of this size are able to produce a chorus which dares to essay a work at once so difficult and of such magnitude and the fact that our local musicians have been able to do so, and with such protheir courage and ability. The work of the chorus generally was of a high does not need to be considered. order and bears convincing testimony to the fact that painstaking effort had been given to its preparation and that it had had competent leadership. It is also a matter for local pride that Clay Center was able to furnish two of the soloists and depended in large measure throughout upon home talent.

The work of the vocalists was admirably supported by Miss Florence at the organ and an orchestra composed of Miss Helen Palmer, R. H. Brown, Lawton Hanna, and Fred Korsmeier, and the charm of their accompaniment added greatly to the success of the performance and the pleasure of the audience.

In the director, Prof. Arthur E. Wesbrook, of the department of music Mr. Kenney. "They are more certain of the agricultural college, the chorus hover where the heat is sufficient to had the highest assistance of a leader ough grasp of this great oratorio and kept perfectly dry and clean. No chick

GIVE CHICKS RIGHT FOOD

PROPER FEEDING AND COMFORT ARE OF HIGHEST IMPORTANCE

Do Not Give Birds Too Much to Eat, Warns Superintendent of Poultry Farm-See That They Have Clean, Dry Quarters

The two most important factors in chick raising are comfort and proper food, according to N. L. Harris, superintendent of the agricultural college poultry farm.

"The little chick, whether naturally or artificially hatched, should not be given anything to eat until it shows signs of being decidedly hungry, which will usually be in about 36 to 48 hours," comments Superintendent Harris. 'One of the first feeds that the young chick should receive is fine sand or commercial chick grit and a good drink of sour milk or buttermilk if possible. More digestive troubles in incubator chicks are caused by lack of grit than by any other one thing.

"One of the essentials in maintaining good digestion is a liberal supply of either sour milk or buttermilk. In a few hours after the sand and milk have been fed, a very small quantity of hard boiled egg including the shell, chopped fine and mixed with bread crumbs or rolled oats, may be given. A good proportion is one part egg and five parts bread crumbs or rolled oats.

MASH FOR YOUNG CHICKS

"On the second day equal parts of cracked wheat and corn should be scattered in a litter. At the same time a mash consisting of 18 parts of corn meal, 21 parts of wheat bran, four parts of bone meal, and two parts of granulated charcoal should be given. The charcoal is not a feed but acts as a regulator. The mash should be fed in shallow troughs that are kept scrupulously clean. If chicks have a free range, this mash may be kept before used every day and unless it is of the them at all times. If, however, they are confined to small pens, only what they will clean up in about 20 minutes should be given them.

"During the first week or 10 days it is best to feed five times a day, after which time three times daily is sufficient. As soon as possible whole wheat and whole kafir should take the place of the cracked grains. Whole kafir is a splendid feed for young

"Where an abundant supply of sour milk is not available it will be found necessary to add half a pound of corn and meat scrap to the dry mash after the first week. This should gradually be increased to reach four pounds at the end of the fourth week.

THEY'RE FOND OF ONIONS

"When the hatch is brought off early and there is not an abundance of green shoots, it will be found beneficial to feed an onion once or twice daily. Slice the onion crosswise so as to form rings. Onion is highly relished by young chicks and is especially desirable on cold, damp days. Later in the season, when it is possible to allow the young chicks to run out for green food, the question of exercise

"One of the most important features in raising young chicks is not to overfeed, and one of the best methods of feeding is to allow the young chicks all they care to eat until noon, at which time they should be allowed to become hungry, even to the point of crying a little. At night they should be given a liberal supply of feed so Cook at the piano, Miss Reba Adams they will go under the hover with full crops.

"The keynote to success in raising young chicks is comfort. If the chicks are given sufficient to eat and plenty of exercise and are not allowed to become chilled they will thrive and return ample profit for the care given them. They must have a properly constructed warm them quickly if they become chilled. All their quarters must be main in damp or dirty places."

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GET AFTER THE GOPHER

ANIMALS ARE BEGINNING TO EX TEND THEIR BURROWS

Trapping Is Most Efficient Means of Exter mination, but Poisoning Is More Practical on a Badly Infested Farm-Rodent Injures Many Crops

Gophers are beginning their spring work of burrow extension and steps should be taken toward their extermination at once, advises Dr. Lee R. Dice, in charge of injurious mammal investigation in the Kansas Agricultural Experiment station.

"Poisoning is the cheaper method where the gophers are numerous but it is not quite so efficient as trapping,' says Doctor Dice. "When one is trapping, he may always be sure of just what results are obtained. The ordinary steel trap may be used or, what is somewhat better, those traps designed especially for this animal. The principle of these traps is that of the spring rat trap. The gopher thrusts his head into the trap when bringing dirt to the surface."

The traps should be run twice a day to get the best results and often a second gopher may be caught by resetting the traps at the same burrow.

STATION MANUFACTURES POISON

Poisoning is the most effective and easily applied method of ridding a badly infested farm. Some years ago the experiment station at the Kansas State Agricultural college began the manufacture of a poison which has proved effective. Openings into the burrows are made with a sharp iron or stick and the corn as treated is introduced into the runways. Sulphate of strychnine crystals may be purchased also and inserted into has just been granted to him for this raisins, prunes, or pieces of sweet potatoes by means of slits made with a sharp knife, and then introduced into the gopher runways.

The gopher is not a prolific breeder, the average number of young being about four. They are usually born in March or April and are ready to establish burrows of their own by the next fall. In the fall, the young may be found running around, apparently in search of suitable fields for their work.

The young are suckled by their mothers and in all probability the capture of the mother before the first of May would result also in the extermination of the young.

Many crops are damaged by the gopher. No other suffers as does the alfalfa, however. Not only is the growing alfalfa damaged by the roots position to enter work in economics being eaten off, but there is considerable loss due to the mounds thrown up lege September 1 to take graduate in the fields, which hinder the harvesting of the crop. Often it is necessary to cut high in order to keep the machine from being clogged with dirt. Meadows of native grass are also damaged in this way. The roots of young trees in orchards are often eaten off and occasionally large trees may have their roots so damaged that they will fall in a heavy wind.

HORSE RADISH GROWING DEVELOPS AS INDUSTRY

Horticulturist Tells of Requirements for Successful Production-How Crop Is Harvested

The growing of horse radish as a commercial crop is receiving more attention every year. Soil and climatic conditions in portions of Kansas are well adapted to its growth. Horse ship is chiefly responsible. Through radish production near Topeka is a his efforts municipal Christmas trees, profitable industry. Adjacent to most community "sings," and similar en cities and many small towns may be terprises have been carried out sucfound gardeners who make a specialty cessfully. He is now secretary of the of grating and bottling this crop.

"Horse radish is best adapted to a cool, deep, rich soil and a late grow- braska Wesleyan University, Univering season," says M. F. Ahearn, asso- sity of Denver, and the Ott School of Are there spots that have been killed to control when crop rotation is pracciate professor of horticulture in the Expression. He has had experience out by water, by gophers, or by grass ticed. Liability of insect injury and Kansas State Agricultural college. in business and in newspaper work.

cause of its rapid growth frequently becomes a troublesome weed. It is a perennial.

"Horse radish is propagated from root cuttings which should be smooth and straight and from four to six inches long. The tops of the cuttings should be placed from three to five inches below the surface of the soil. Horse radish should be planted 12 to 18 inches apart in rows sufficiently wide to permit horse tillage."

The crop is harvested by plowing out, washing, and grading the roots. It is necessary to grade the roots so that they will fit the grating machine. The price of horse radish varies from \$8 to \$50 a ton. An acre produces from two to four tons, but greater yields are obtained from deep rich soils where there is no lack of mois-

HOLTON WILL TEACH IN UNIVERSITY OF CHICAGO

Professor of Education Is Honored by Summer Invitation-On Leave for Coming Year

Edwin L. Holton, professor of education in the Kansas State Agricultural college, will teach rural education and rural sociology in the University of Chicago during the summer quarter. His work will be in the school of education and the school of arts and sciences. The University of Chicago secures each summer a number of men of special qualifications to offer

Professor Holton will spend the coming year in graduate study in Columbia university, from which he expects to receive a doctor's degree in the summer of 1917. A leave of absence purpose.

Professor Holton is a graduate of Indiana university and has already taken graduate work in Columbia university. He has been head of the department of education and director of the summer school since 1910. He has built up both to a high degree of efficiency and is recognized as a leading authority on vocational education.

FRED WINSHIP TO ENTER SOCIAL SCIENCE FIELD

Instructor in English Resigns to Take Up Work in Economics and Sociology

Fred C. Winship, instructor in the and sociology. He will leave the col-University of Nebraska. Professor Winship already holds a master's degree, based in part on work in the social sciences. He plans to teach these subjects later.

Mr. Winship has taught in the college three years and has been diligent and efficient in his college work. He has used current magazines with distinct success in teaching English, and the Independent sometime ago commented editorially on his work in this field. He has kept in close touch with the individual students in his classes.

For the organization and maintenance of the Manhattan Christian brotherhood, one of the strong civic organizations of the town, Mr. Win-

Mr. Winship holds degrees from Ne-

"It grows until cold weather and be- PAYS IN REAL MONEY

COLLEGE EDUCATION ADDS TO PROF-ITS OF KANSAS FARMING

Investigations in Seven Counties Show Highly Trained Men Making Large Labor Incomes—Institution Gives Work in Agricultural Management

A college education is a valuable business asset to a farmer. While it is impossible to estimate the value of an education in dollars and cents, investigations in farm management conducted by the Kansas State Agricultural college indicate that the farmer with a college education makes more money than his less educated neigh-

Labor income data were secured by Professors W. E. Grimes and P. E. McNall from 635 farmers in Allen, Harvey, Jewell, Leavenworth, Lyon, Pottowatomie, and Cowley counties. The extent of their education was also obtained.

Four hundred and ninety-eight farmers who had only a common school education made an average labor income of \$499.

One hundred and twenty-six had gone farther than the common school but had not completed a college course. Their labor incomes averaged \$631.

COLLEGE GRADUATES AVERAGE \$1,452

Eleven had completed a four year course in college. Their labor incomes averaged \$1,452, or almost \$1,000 more than the men with common school education and more than \$800 greater than the men who went farther than the common school but did not complete a four year college course.

Further work in farm management is being carried in by the college. Data covering a wide variety of phases of farm business are being coldistinct practical value to the farmer.

URGES FARMERS TO TRY SUDAN GRASS THIS YEAR

G. E. Thompson Shows Value of Crop for Pasture Purposes-Stock Relish the Hay

Farmers-particularly those in the western half of the state-are urged to give Sudan grass a trial this year. Reports from various sections of Kansas indicate that it is particularly desirable as a pasture crop.

English language, has resigned his duced at the Dodge City experiment in horticulture in the Kansas State station in Ford county. This field Agricultural college. was planted with an ordinary wheat drill May 1 and cut for hay August 1. may be supplied by expensive fertiwork toward a doctor's degree under It was pastured for the rest of the sea- lizers," says Mr. Merrill, "but a Dr. James E. Le Rossignol, head of son and produced an excellent quality the department of economics in the of tender grass relished by all kinds different food requirement that will of live stock. Another small field of replace the exhausted elements. two acres was planted for a hog and calf pasture at the rate of 22 pounds of seed to the acre. It fur- hausted. All crops need humus in the nished continuous pasture for 20 head of hogs and five calves from June 10 some years green crops should be to November 1 and in addition from turned under, thus furnishing an alsix to 10 head of cattle were turned in most immediately available plant food for a day or two on several occasions and a larger supply of nitrogen.

to eat down the excess grass. "Farmers should try Sudan grass," though not so rich as alfalfa. Kanused for planting, as there is danger in getting Johnson grass in southern grown seed. Seed can be bought for 6 to 10 cents a pound and should be planted when the ground is warm or the regular time for planting sor-

and weeds? If so, disk these spots fungous disease is reduced."

and disk the edges around the field where grass has come in, and sow them to Sudan grass this spring.

"The Sudan grass will make a good thrifty growth, and will stand cutting as often as the alfalfa. The hay will not be injured in the least for home use, as all kinds of stock eat and relish Sudan hay."

If alfalfa is grown for the market, a little care should be used in stacking to place the Sudan grass in one end of the stack, points out Mr. Thompson. That portion of the stack may then be kept for home feeding. A few enterprising farmers in Kansas have already tried this scheme and not only have increased their yields because a crop was grown on former weed patches, but have helped the appearance of their farms as well.

CUTWORM AFTER WHEAT IN SOUTHERN KANSAS

Can Insect Be Killed with Poison Bran Mash? is Question Under Investigation

The unexpected appearance of cutworms destroying the wheat in south central Kansas has led the agricultural college to make a field investigation of this pest. T. H. Parks, extension specialist in entomology, visited the infested area and reports that the cutworms belong to a species commonly found throughout the state. They are the offspring of moths that deposited eggs last fall in early sown and volunteer wheat. The worms are now from one-half to three-fourths grown and will probably continue to injure the grain until they go into the ground to transform to the pupa stage. Thus far they have not been found to injure alfalfa and will have disappeared by corn planting time, so that this need not be delayed.

The extension division is making an lected, and are expected to prove of effort to demonstrate whether or not they can be killed by the poison bran mash used so successfully against grasshoppers. As the worms feed in largest numbers above ground in the evening, rolling the wheat at that time may be helpful where the ground is level.

EVERY GARDENER SHOULD PRACTICE CROP ROTATION

This Plan Is Cheaper Than Use of Commer cial Fertilizers, Points Out Merrill

Crop rotation should be practiced by every Kansas gardener in order to Three and one-fourth tons of cured maintain a high degree of soil effi- but if properly cured with most of the hay per acre in one cutting was pro- ciency, asserts F. S. Merrill, assistant leaves unbroken it is readily eaten by

"Soil elements which are lacking cheaper way is to plant a crop with a

"Rotation tends to even up the soil -no one element of plant food is exsoil and this is the way to get it. In

"Every person should have a regular plan of rotation for his garden, says G. E. Thompson, specialist in covering a period of three or four crops, division of extension, Kansas years, because no crop should be re-State Agricultural college. "The hay turned to the soil oftener than every is richer in protein than prairie hay, three years. In this way the same amount of all vegetables may be grown sas or northern grown seed should be one year after another. The plan requires that the plots of ground be the same size.

"In general, one crop should follow another of a different family. For example, potatoes may be followed by beans, peas, or cabbage. One plot may be put in sweet corn for two "Has crab grass or foxtail come in years and then followed by two years around the edges of your alfalfa field? of potatoes. Weeds are less difficult

SOY BEANS A CASH CROP

GROW THEM ON SMALL FARMS IN EASTERN KANSAS

Seed Sells at Good Price or May Be Fed to Live Stock on Home Place-Plant Makes Satisfactory Hay and Pasture

Soy beans should be a profitable cash crop for many farmers who are managing small farms in the eastern half of Kansas, in the opinion of Ralph Kenney, instructor in farm crops in the Kansas State Agricultural col-

"Soy beans are to be preferred to cowpeas for any man who follows a system of farming that is at all intensive," says Mr. Kenney. "They produce two to five times as many bushels of seed to the acre and our variety tests for the past few years have shown that soy beans will produce one-third to one-half more hay to an acre than will cowpeas. Because of their upright growth soy beans are more easily har vested with a mower and for the same reason they are not so difficult to handle for hay."

Soy beans are fully as resistant to drouth as cowpeas but should not be thought of as a dry land crop, in the opinion of Mr. Kenney. Soy beans were given their first general trial in Kansas. Seed was distributed by the Kansas Agricultural Experiment station to all the counties of the state. Seventy-five counties reported-most of them favorably so far as growth was concerned, although some contended that rabbits destroyed so much of the stand that the crop was not profitable.

PROFIT PAYS FOR TROUBLE

Some farmers become dissatisfied with soy beans in the first trial because many pods are produced close to the ground and these are lost in harvesting with ordinary machinery.

Considering the fact that in ordinary seasons, with a well selected variety, soils of average fertility will yield 25 bushels of seed worth at least \$2 a bushel, a man can afford to do a little unpleasant work and use considerable care at harvest time.

If the seed is not sold it may be fed with profit on the farm since the feeding value of ground soy beans is similar to that of oil meal.

Hay made from soy beans is coarse all classes of live stock. In feeding value it is practically equal to alfalfa.

GROW IN CORN SOILS

Soy beans grow well in any soil that will produce corn profitably. They are planted in rows at from three to five pecks per acre, May 10 to June 1, with either a grain drill or a corn planter. The cultivation is similar to that of corn, whether the crop be for hay, grain, or pasture purposes. Soy beans are rarely seeded solid because they do not smother out weeds so well as do cowpeas when planted broad-

To cure for hay, they require a little shorter time than cowpeas, three or four days being usually enough. In curing, the vines should be kept in windrows or small piles, according to Mr. Kenney.

For pasture soy beans are similar in quality to cowpeas, and cattle or hogs may be turned on them when the first pods are well filled. They should be pastured rather heavily since they are somewhat injured by tramping.

Soy beans are being used on a limited scale in the south for the production of oil used instead of linseed oil in making paint. Their use in this way promises to increase in the future.

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Newspapers and other publications are in-ited to use the contents of the paper freely

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SATURDAY, APRIL 8, 1916

Most of the dashes in the European war seem to be made by the censors

With the threatened shortage of lead pencils, the old time slate may again come into schoolroom vogue, to the delight of grandfathers and the horror of physicians.

It is asserted that some of the wealthy are seeking thrills by traveling in the war danger zone. They could get the same effect more cheaply by visiting Kansas City at election time.

WANTED-SKILLED FARM LABOR

This is the time of year when work on the farm is plentiful but workers are scarce. As spring opens up, work is usually available in the cities and the itinerants who make up most of the farm laborers of the country drift to the large centers, where conditions are more to their taste.

This means that much of the spring work-some of the most important work of the entire year-must be done by the farmer and his family. Often they have not time to do it as well as it should be done, and this is undoubtedly one important reason that better preparation is not made for planting.

Few modern businesses except farming could exist at all under such a system. Nor can the business of farming reach its highest point under these communities today. Everyone knows circumstances. What is needed is a that fine trees and graceful shrubbery system of agriculture that will distribute the farm labor throughout the year and make it possible to develop skilled labor in this as in other fields of industry.

JUSTIFIED ECONOMICALLY

You can't build up a state socially or morally unless you build it up economically. That is the experience of history. Sound economic conditions and sound moral and social conditions go together.

In this principle is the justification for a college's training its students so that they will make good financially if they enter industrial pursuits. The public college serves the state not merely in producing good citizenswhich it ought to do-but in producing good economic workmen at the same time. There is no contradiction between the two, any more than there is a contradiction between sound economic conditions and sound moral and social conditions.

Colleges are serving the state in both ways. It has been evident for a long in building citizenship. In the figures obtained in an investigation in Kansas and published elsewhere in THE INlabor income of farmers who are col-

college training.

A GREAT EDUCATOR

The death of Dr. James Burrill Angell removes the man who did probably more than any other for the cause of state-sustained college education in America in the nineteenth century. Doctor Angell became president of the University of Vermont in 1866, when there were but 16 state supported institutions in the United States and eight of these in the south and completely demoralized by the war. On the Pacific coast, there was the University of Washington. The rest of the institutions were mainly in the middle west.

Nearly everywhere they were looked upon with suspicion. Even where they introduced biblical teaching, as some of them did, it was felt that their orthodoxy was open to question. The fact that they were introducing coeducation was another point urged against them. They were new, moreover, and competent men hesitated to leave the private institutions in which they held positions, and accept professorships in the new state colleges and universities.

Doctor Angell stayed at the University of Vermont for five years and then went in 1871 to the presidency of the University of Michigan, where his greatest work was done. He remained in active service there for 38 years, during which time he gave the University of Michigan a place among the greatest institutions of the country.

In the seventies and eighties the University of Michigan had the general reputation of possessing the highest scholarship in the middle west. It was recognized by the older institutions of the east, and this fact gave prestige to the state institution system. The successful building up of the system in the western and middle western parts of the United States was enormously assisted by the illuminating example of Michigan.

State colleges and universities have become the typical institutions of higher learning in this part of the country. To Doctor Angell their development is to a great extent due.

PLANT A TREE

When this country was new, doubtless it was necessary, in many a wooded section, to cut away all trees within a good-sized radius of farm buildings and schoolhouses so no cover would be afforded skulking Indians. The time for this precaution passed decades ago. Yet the practice without the reason still obtains in far too many add much to the beauty and selling value of a farm, as well as give shade and comfort. Then why are the lawns surrounding our homes and schoolhouses and the roadsides so barren? In the older countries much of the beauty of the landscapes comes from the trees and shrubs which have been cared for for generations.

The usual excuse of expense, which kills many praiseworthy projects, does not hold good with Arbor day plans. The very best trees to plant are those which are native to your locality. Little care is needed, once they are well planted, and no better monument can be asked for man than splendid trees set with an eye to use and beauty. In some localities apple and nut trees are being planted by the wayside. Are you, this year, going to do your part toward increasing the beauty and comfort of this old world of ours?-Orange Judd Farmer.

BY THE BEARD OF MARS

Are whiskers to come back during time that they were serving the state the Mexican excitement? In the face of years of labor and anti-whisker crusades, the Gazette has fought and bled in the cause of no whiskers, and DUSTRIALIST, it is evident that college now whiskers seem to be coming back. training has helped men in the eco- Carranza has a bushel of whiskers, of nomic field. These figures show the the bush variety. They are gray and wooly, and travelers who have seen lege graduates as 191 per cent ahead him say that the first chief wears them Chicago of his pleasant work with in that institution in the preparation course, the point at which the ability of the labor income of farmers with parted down Commercial street, with the Charles F. Stokes Manufacturing of his works on geology.

only common school education. It is attractively laid out drives and bridle 130 per cent above that of farmers who paths. Fred Funston has whiskers, went farther than the common schools but he conforms to the hedge and blind but did not go through college. The crossing regulations and keeps them figures are an economic justification of trimmed. Villa has short grass creepers, of the common or hobo variety, thick, curly, and full of hay seed and axle grease.

> This scrap is simmering down to a battle of whiskers, and with all of its abhorrence for whiskers, the Gazette will accept the lesser evil, and pick the year from the thraldom of kohlrabi formal garden type worn by Funston and mangelwurzel, and under favoras a ruling favorite in the betting. ing conditions will add much to the Carranza's whiskers are a landmark, extent and beauty of the lawns.

> > to the practice of warfare.

nations.

company, and plans to visit the college at an early day.

Professor Olin went to Lawrence on Thursday to attend the annual meeting of the Kansas Academy of Language and Literature. His composition classes were cared for by Miss Julia Pearce, '90.

The large plot of ground southeast of the main building will emerge this

You Can't Humanize War

THE attitude toward war is at present the greatest ob-

Doctors of international law assure us that "the methods

of warfare, although by the nature of war to a certain

degree cruel and unsparing, become less cruel and more

humane every day." But there is little foundation for this

assertion. Although attempts have been made at interna-

tional conferences to lessen the cruelties of war, the rules

laid down are only too often violated, and the invention of

new means of destruction is constantly adding new horrors

strict or mitigate in some respects its cruelties is a unique

outcome of Christian civilization. Even many uncivilized

peoples have made it a rule in war to spare the weak and

helpless-women, children, and captives. So also the

Geneva convention has been anticipated by some non-

international law who boast of the "enormous" influence

which "the principle of humanity" has exercised upon the

modern practice of warfare. The truth is that, while moral

evolution has shown a steady and conspicuous tendency to

improve the relations between different social aggregates

and their members in times of peace, its influence on war

has been comparatively insignificant. And the reason for

this is not difficult to find. War can never be humanized.

But I think it can, and will, be abolished among civilized

The members of the same social unit are tied to each

other with many bonds-solidarity of interests, the same

customs, institutions, and magic or religious ceremonies

and beliefs, a common language, and, frequently, notions

of a common descent. And as men generally are fond of

that to which they are used or which is their own, they are

also naturally apt to have likings for other individuals

with whom they live and whose habits and ideas are similar

to theirs. Hence, when the political unit grew larger, when

the idea of kinship developed into that of racial affinity,

and when the same religion became common to all the citi-

zens of the new state, the altruistic sentiment underwent a

corresponding expansion, while the increasing coherence of

the political aggregate added to the strength of this senti-

Facts of this kind should be considered by writers on

It is also a mistake to believe that the tendency to re-

stacle in the way of moral progress, and it is as formidable an obstacle as it ever was in the past.

SUNFLOWERS It's a long, long leap from linseywoolsey to lingerie.

REQUIEM

Robert Louis Stevenson

And I laid me down with a will.

This be the verse you grave for me:

Here he lies where he longed to be;

Home is the sailor, home from the sea,

And the hunter home from the hill.

Under the wide and starry sky,

Dig the grave and let me lie.

Glad did I live, and gladly die,

Mrs. Gadding A. Bout has found it necessary to establish a downtown

The average husband should not be required to do more than three hours' housework a day.

What has become of the demure little maiden who could look innocent without a make-up?

THE INDUSTRIALIST'S announcement that "spring has came" will be along in the next three or four weeks.

If we were Mr. Jess Willard we wouldn't quit fighting either-at least not until some man our size came along.

If you will notice closely you will find that very few married people fail to indorse adequate preparedness for matrimony.

The Indiana state board of health says that it is more important that a state count its babies than that it count its money. Why count either?

LUCILE IN BOOTS

My dear Lucile has bought some boots, They almost reach her skirt; And well she knows they catch men's

The daring little flirt.

eyes-

WE'RE AGIN THEM, TOO But Hyperides was failing and he knew it; his oratory was but a thin and ineffectual stream again the fires of hatred and superstition.—Chicago Tribune.

WHICH DO YOU VOTE FOR?

Some things we might do to Villa: Capture him.

Hang him.

Shoot him at sunrise.

Feed him to the cannibals.

Make him fight Jess Willard 60 rounds.

Force him to work on the section for Make him take a bath three times a

Allow him nothing to eat but break-

fast food.

A PRIMITIVE INCUBATOR

Downy chicks and ducklings are just beginning to make their appearance, but the Chinese method of hatching as many as 500 duck and chicken eggs in one sitting has not yet been adopted in this country. Unhusked rice is used for the purpose, and when this has been roasted it is either cooled by a fanning process or the wind is allowed to blow through it until it is lukewarm. The breeder then sprinkles a three inch layer of rice in the bottom of a wooden tub, and on this surface places about 100 eggs. Another layer of rice about two inches thick is spread over them, and on this layer eggs are also placed, and the tub is filled in this way until there are six layers of rice and five layers of eggs, making 500 eggs in all in the tub.

Every 24 hours the rice has to be heated, and for this purpose the eggs have to be removed, the bottom layer this time being placed on top, and the other layers one row lower down, the eggs that occupied the central position ton is probably the best qualified man in the tub now being placed at the edges. There is some difficulty in gauging the exact time at which the Mudge on the plains in the interests eggs will hatch, and unless care is of Yale college, and for a long time taken, some of the young ones are of the expert is shown. - Answers.

ment. But it was not extended to strangers, with whom little intercourse was held. Savages consider themselves vastly

superior to the whites, and are therefore astonished at the arrogant air of superiority adopted by the latter. If a South Sea Islander sees a very awkward person, he says: "How stupid you are; perhaps you are an Englishman!" There is an inveterate tendency in the human mind to

assume that existing conditions will remain unchanged. But the history of civilization shows how unfounded any such assumption is with reference to those conditions which determine social relationships and the extent of moral rights and duties. And these changes are all in favor of peace and not of war.

and should be cherished, but Villa, when he is captured should be turned over to the civilizing influences of the nearest barber college.—Emporia Gazette.

A QUARTER CENTURY AGO

Items from The Industrialist of April 11, 1891 The college band rendered good mu-

sic on the campus yesterday afternoon in their first outdoor rehearsal.

Miss Delpha Hoop, fourth-year, recited a poem at the Knights of Pythias reception on Wednesday evening.

Professor Lantz assisted in the oratorical contest of the Clay Center high school last evening by acting as one of the judges.

The Hon. Martin Mohler spent yesterday afternoon at the college, interesting himself in our proposed beet sugar experiments.

Lieutenant Bolton was called to Fort Leavenworth on Tuesday to be examined for promotion. In his absence, H. B. Gilstrap, fourth-year, had command of the cadets and F. A. Waugh taught the lieutenant's classes.

W. T. Swingle, assistant in botany, expects to leave for Washington, D. C., about May 1 to assume the duties of his position in the department of vegetable pathology. Miss Emma Allen, '89, has taken up postgraduate work in botany, and will act as assistant to Professor Kellerman.

The board of regents of the state university have established a geological survey and placed Prof. S. W. Williston at its head. Doctor Willisfor the position in the country. He spent several years with Professor J. U. Higinbotham, '86, writes from was Professor Marsh's first assistant likely to be smothered. This is, of

Dan Walters, '08, is farming near Beloit.

C. A. Davis, '13, has been studying medicine in the University of Kansas this year.

Miss May L. Cowles, '12, is assistant in home economics in the University

John B. Brown, '87, is superintendent of the United States Indian Industrial school at Phœnix, Ariz.

Miss Jessie McKinnie, '12, is teaching her third year at Atlantic, Iowa. Her work is in home economics.

Miss Elma Brubaker, '14, is at home at Edwardsville. She has been taking special work in domestic art at Queens City college this year.

I. E. Taylor, '13, of Manhattan, has accepted a position as superintendent for the A. Jaicks company. This company specializes in pavement construction.

Robert Kerr, Jr., a sophomore student in civil engineering, has left college for the spring term. He has accepted a position with the Santa Fé railway.

Mr. W. E. Comfort, '14, a graduate in civil engineering, is engaged in drainage investigations for the United States department of agriculture, Washington, D. C.

E. A. Vaughn, '12, and Roy Gwin, '14, attended the national conclave of Pi Kappa Delta at Washburn college. Mr. Vaughn spent Sunday afternoon in Manhattan.

Miss Christine Rentschler, '13, who has been director of the Young Women's Christian association cafeteria at St. Joseph, Mo., is now dietitian at the New Noyes hospital there.

Miss Anna E. Sanders, '14, left recently for Florida, where she will remain for the summer. She will visit her grandfather at West Palm Beach. Miss Sanders has been in Manhattan

Otis N. Blair, '04, has moved from Hazelton to Twin Falls, Ida., where he is on the engineering force of the Larrowe Construction company. The firm is building a large beet sugar factory at Twin Falls.

C. M. Haines, '09, director of the manual training extension work of the Fort Worth (Tex.) schools, is permanent chairman of the North Texas Manual Arts association which was organized at a meeting held at Dallas.

Mr. and Mrs. George K. Helder are now at home in Manhattan. Mrs. Helder will be remembered by former students as Edith McDowell, '93. Mr. Helder recently resigned the superintendency of the Fort Hays Experiment

Max Ravitch, formerly instructor in English in the college, is lecturer on literature for the New York city department of education. This is a form of extension service undertaken by the public school system. Mr. Ravitch is giving a course of addresses on "The Meaning and the Varieties of Litera-

Ray T. Wells, '10, has resigned his position as city engineer at Parsons, Kan., to become head of the civil engineering department of the Wichita Natural Gas company at Bartlesville, Okla. Mr. and Mrs. Wells expect to move to Bartlesville within a few days. Mrs. Wells will be remembered as Miss Edna Willis, '10.

E. G. Sanders, '13, who has been employed by the Santa Fé railroad, has returned from a trip in New Mexico. He has been in charge of the test car that has been operating tests of all kinds upon the southern division of the Santa Fé. "Sandy," as he was known while in college, will be stationed at Topeka during the summer.

Con M. Buck, '96, former city engithe engineering work of the Santa Fé in June. The first draft of his thesis, stop at the casement line."

"A Description of the Construction of KANSAS A MELON STATE the Guthrie Reservoir," has been submitted to the civil engineering department for approval.

BIRTHS

Born, to Mr. A. R. Losh, '10, and Mrs. Losh, Manhattan, on April 3, a son, Richard Caton.

Born, to Clyde McKee, '10, and Mrs. Clara (Shofe) McKee, '10, Ames, Ia., on March 28, a son, Robert Thayer.

MARRIAGES

WERNER-FRIEDLINE

Miss Ruth Tabor Werner and Mr. Earl Philip Friedline were married Sunday, April 2, at the home of the bride's parents, Mr. and Mrs. J. A. Werner, in Alden. Mr. and Mrs. Friedline will make their home in Alden.

ALUMNI ARE PARTNERS

My dear Miss Rice:

I am just in receipt of THE INDUS-TRIALIST which announces that you is increased and larger fruit result, will edit the alumni column in the fu- the quality is usually decreased. Such ture. I am certain that every alumnus will read that with gratification and does not keep or ship well. will wish you the best of success in your work.

Two K. S. A. C. alumni are located here, Dr. P. J. Meenen, '09, and myself, and we look forward every week to the coming of THE INDUSTRIALIST which brings us news of many alumni friends that we would hear nothing from otherwise.

As you will notice from the letterhead, we are partners in the Shelton Serum company here and are enjoying a very good business. I am making my home with Doctor and Mrs. Meenen, the latter of whom was also a K. S. A. C. student at one time, and we shall always be glad to see any K. S. A. C. people should they ever be coming this way.

Again wishing you much success in this department I am

Very truly yours, L. B. WOLCOTT, '12.

Shelton, Nebr.

HONOR TO BRINK

Raymond W. Brink, general science '08, electrical engineering '09, has just been awarded a traveling fellowship by Harvard university. He has his choice of a year's research work in this country or in Europe. He expects to leave for Paris about the middle of August.

After graduation here, Mr. Brink taught mathematics three years in the University of Idaho and one year in the University of Minnesota. For the last three years he has done graduate work in pure mathematics at Harvard. where he has held several scholarships. Last year he was granted a master's degree. He is now working for the degree of doctor of philosophy. At present he is president of the Siever club, a mathematics society composed of graduate students and faculty mem-

LET A LITTLE SUNSHINE IN" SHOULD BE HOUSEWIFE'S SONG

Homes Are Too Often Places of Gloom, Warns Teacher

Many housewives fail to let enough sunlight enter the house, in the opinion of Miss Araminta Holman, instructor in home art in the Kansas State Agricultural college. Homes are too often places of gloom.

"Curtains should be transparent in texture and so hung that they can be easily moved aside," says Miss Holman. "Curtains may be required to tone the light which enters a room, for the light may be too strong or of a disagreeable color when reflected from a neighboring red brick wall. In crowded cities curtains are frequently needed to cut out the unpleasant

"In color, curtains should repeat in lighter vein the general color scheme of the room. Delicate, transparent on the care the plants are given,' color tones are more pleasing than neer of Manhattan, now prominent in white and invariably appear delicate as compared with the window frame. railway, has made application for the There is no excuse for window curdegree of civil engineer, to be conferred tains reaching the floor—they should least once a week with an eight shovel of sleep necessary to his health to

CLIMATE IS ADAPTED TO THOROUGH LY SUCCESSFUL PRODUCTION

Soil Is Important Factor, Says Horticultur ist-Highest Quality Is Attained on Sandy Loam-How to Combat Insect Pests

The climate of Kansas is adapted to successful melon culture and wherever the soil is suited to the requirements of these crops, they may be profitably grown, either for home use or on a commercial scale, declares F. S. Merrill, assistant in horticulture in the Kansas State Agricultural college.

"Melons attain the highest quality on a sandy loam, or light soil containing plenty of humus, free from weeds and well drained," says Mr. Merrill. "A soil of this type with a clay subsoil gives the ideal condition, especially in cases where the rainfall is likely to be deficient. A soil that is very rich in nitrogen should not be selected, for although the vine growth fruit is soft and rather insipid and

"For home planting, the heavier soils may be fitted for melons by working well rotted manure into the hills. Such soils often produce good fruits. For commercial growing, melons can be more cheaply produced on the lighter soils to which they are best adapted."

PULVERIZE GROUND IN SPRING

In order to have the soil in the best possible condition, Mr. Merrill recommends deep fall plowing. ground should be thoroughly pulverized in the spring before the crop is planted. On the lighter soils, disking and harrowing is usually sufficient. On the heavier soils that tend to pack, a shallow spring plowing may be necessary. A deep plowing at this time will be injurious to the crop, since the natural tendency of the plants is to produce a shallow root system. To attempt to induce the roots to penetrate too deeply, causes a rank growth of vines, but usually checks the fruit development.

The seed should not be planted until the danger from freezing and low temperature is passed.

The seeds are planted in hills. These may be made by throwing two furrow slices together with a stirring plow and at the proper place preparing the nill on this ridge.

If the soil is deficient in humus, a forkful of well rotted manure may be added to each hill. This should be well broken up and mixed with the

HOW TO PLANT MELONS

The hills should be level with the surface of the ground and from 12 to necessary. 14 inches across. Watermelons are usually set in hills from nine to 12 feet apart each way, and cantaloupes from six to eight feet apart, depending upon the fertility of the soil and the character of the vines.

As soon as the hills are prepared, the seed should be planted. For watermelons, use from six to eight seeds to the hill. These should be evenly distributed and buried an inch deep. The soil should be well firmed above them.

For cantaloupes, from 10 to 12 seeds may be used to the hill and planted three-fourths of an inch deep. If the likelihood of injury from cutworms is great, a larger number of seeds may be planted to each hill.

Some commercial growers start the seed in hot beds early in April. Seeds may be started in inverted blue grass sod six inches square, or in paper or veneer boxes sold for this purpose. An earlier crop is usually procured in this way.

DO PLENTY OF CULTIVATING

"Cultivation is absolutely necessary and the success attained depends upsays Mr. Merrill. "When the vines are small, the ground may be worked with one section of the harrow. The cultivator until the vines are ready three a day.

for laying by. Hoeing in the hills IN BRILLIANT PROGRAM and about the vines is also necessary.

"When the vines nearly cover the ground, they should be ready for laying by. For the watermelons, this will be from June 15 to June 25. Lay the vines over from the middle and give a shallow cultivation, leaving the ground as level as possible.

"During the first part of August the early melons should ripen. When proper care has been given earlier in the season, the late ones should continue until frost."

The college has made extensive variety tests and these, coupled with the opinions of expert growers in the state, have shown what varieties are best adapted to Kansas conditions. For market or commercial handling, Kleckley sweets, Tom Watson, Monte Cristo, sweetheart, and Dixie are recommended. Others that have been tested but have not proved so uniformly successful are Kobb's gem, Alabama sweet, rattlesnake, and Florida favorite. For home use, Monte Cristo, Tom Watson, and Kleckley sweets are usually considered of the highest quality and when the three varieties are grown, a long bearing season can be secured.

THESE ARE GOOD CANTALOUPES

Among the varieties of cantaloupes that have been tested for market and for commercial purposes are Burrell's gem, Rocky Ford, Jenny Lind, hoodoo, emerald gem, and Hackensack. Of these, Rocky Ford, emerald gem, and hoodoo have shown the best records. For home use the same varieties can be recommended.

Where the melons have been grown for several years, injury may be caused by the melon louse, the cutworm, and the striped cucumber beetle.

The melon louse has been successfully controlled by a spray composed of six ounces-three-eighths of a pint of 40 per cent nicotine sulphate and one and a half to two pounds of soap to 50 gallons of water. The spray must come into contact with the insect | nique. to be effective and absolute thoroughness therefore is necessary for good results.

The cutworms winter in the ground and a late fall plowing will greatly reduce their number. A poisonous bran mash made by mixing together one pound Paris green, two quarts of sirup, three oranges, 20 pounds bran, and three and one-half gallons of water is useful. The oranges should be grated or cut into small pieces and added to the mixture of sirup and water. The Paris green and the bran should be thoroughly mixed. The liquid should then thoroughly be particle is moistened. This should be scattered around the hills after sundown. Repeated applications may be

The striped cucumber beetle is often one of the most serious pests of the melon, Mr. Merrill asserts. The adults appear in the spring and destroy the young plants. For a few plants, a screening is recommended by Dr. T. J. Headlee, former professor of entomology and zoölogy in the college, as effective.

As the insects do not readily attack plants that have been dusted, a dusting of air slaked lime alone or mixed with tobacco dust may be successfully used. Pyretheum powder may be equally effective. Arsenate of lead used at the rate of three pounds to 50 gallons of water is a desirable spray. As a preventive measure, burning of the vines in the fall is recommended.

HONORARY SOCIETY MAKES MACARTHUR SECRETARY

Local Professor Is Elected to Office in Pi Kappa Delta

Dr. J. R. Macarthur, professor of the English language, is the new secretary of Pi Kappa Delta, honorary forensic fraternity. Doctor Macarthur was elected at the convention held at Washburn college, Topeka.

An English clergyman asserts that ground should then be cultivated at by training he has reduced the hours

COLLEGE ORCHESTRA CHARMS BIG

Variety of Selections Brings Out Many Attractive Qualities-Composition by Miss Easter Is Presented-Miss Carley Pleases All with Solos

The 38 piece college symphony orchestra added to its already high popularity Monday night, when it gave its seventh annual concert before an audience of 2,000, under the direction of R. H. Brown, assistant professor of music in the Kansas State Agricultural college.

The program was exceptionally well arranged and contained a variety of classical selections suited to bring out the individuality of every type of instrument as well as to give the impression of a unity of all.

Miss May Carley of the department of music, was the soloist and was accompanied by Miss Mildred Waugh. Miss Carley has a rich contralto voice of tremendous power and capable of wide range. In the lower tones it is so deep as to approach almost a baritone. Miss Carley sings with intensity and confidence.

The aria from "Samson et Delila"-'My Heart at Thy Sweet Voice"with orchestral accompaniment, was received enthusiastically. This beautiful composition, with its sweet solo part and its harp, string and wood wind accompaniment, its ever varying tempo, its fortissimos and pianissimos, produced a remarkably pleasing

GROUP OF SONGS ATTRACTIVE

Miss Carley sang a group of three other songs, with only pianoforte accompaniment. "The Last Hour," by Kramer and "April," by Floridia, achieved the most applause. They were rendered with spirit and intelligence, being particularly fitted to Miss Carley's quality of voice and tech-

The selections from Schubert's "Unfinished Symphony" and Puccini's 'La Boheme'' brought out well the ability of the orchestra to respond to the conductor's leadership. The wood wind showed up to especial advantage in the rise and fall of one of the principal melodies of Puccini's produc-

"Crusaders' March" and "Saracen Patrol''-excerpts from De Koven's 'Maid Marian''-thrilled the audience with their dash and brilliancy. Tympani effects and a martial tone induced by brass and wood wind, together with the entire orchestra's quick adworked into the mixture until each aptation to changes in mood, imparted finish to the piece.

ORCHESTRATION BY BROWN

In many ways, the most interesting number was a composition by Miss Fanchon Easter of the music department, which was played as an encore. Professor Brown deserves much credit for the masterly way in which he orcone-shaped cover made from wire chestrated it for the instruments of his organization. The piece was written originally for the piano. Its lilting Scotch accent was transmitted remarkably well in the orchestral arrangement, through Professor Brown's thorough acquaintance with the possibilities and the limitations of every musical instrument. Those who attended the concert look forward to more musical productions from the same sources in the future.

The last selection was from Wagner's "Tannhäuser." It was the triumph of the evening. Those familiar with the composition know of its immense possibilities. The orchestra availed itself of them all wonderfully well. A sense of unity, purpose, and progress impressed the hearers.

Professor Brown is well pleased with the work of the orchestra members. He feels that he has been especially fortunate in procuring the full number of instruments usually present in the large city symphony societies and in obtaining a good balance. The raised platform recently constructed for the use of the orchestra has been of great aid in the rehearsals and concerts. W. T. B.

MAKE GROUNDS AS NEAT AS INTERIOR OF HOUSE

THERE'S MUCH TO BE DONE IN BEAUTIFYING SURROUNDINGS OF HOMES, SAYS PROF. M. F. AHEARN-HERE ARE SOME UP TO DATE SUGGESTIONS

HOME GROUNDS

The problem of beautifying home surroundings is receiving increased attention.

Formal treatment is recommended for city lots and the natural style for country homes.

Walks and drives should be constructed from both the utilitarian and the ornamental points

A good lawn may be had from a combination of bluegrass and redtop.

The artist should plan for the future, as well as for the pres-

Keep the grounds as neat outside as the housewife keeps the home inside.

A marked advance has taken place in the last 10 years in the attention style, according to the landscape given to the problem of beautifying architect. The large area permits a home grounds, in the opinion of M. F. Ahearn, professor of landscape gardening in the Kansas State Agricultural college. There is, however, a trees and shrubs, and still maintain rangement, if used judiciously. Ungreat deal more to be done in this regard, he believes.

home grounds until recent years," says Professor Ahearn. "The rural and members of rural communities are most natural way. striving to beautify their places in the country.

the boy on the farm is to make the good for walks which pass through surroundings more attractive than large groves. The width of walks and those of the city residences. To spend drives should be governed by the \$10,000 on the buildings does not seem extravagant, but to spend a one hundredth part of that amount on the grounds is often considered prodigal. Until the property owner realizes that in planting his grounds he is increasing the value of his property, there will be unsightly places."

MAKE A WORKING PLAN

Professor Ahearn advocates a policy of planning the grounds with as much care as the house or other buildings. Before making a working plan of the grounds, there must be a decision in regard to treatment-whether it will be formal or natural. No ironclad rules can be laid down for guidance in this selection, as each place will present conditions peculiar to itself and it is necessary to choose the style best fitted to the subject.

In general, the formal style will prove better for small areas and the natural for large estates. The plan should record the size of the area to be landscaped, the location and size of the buildings, walks, and drives, and the exact position of each tree, shrub, and vine-in fact, everything that is expected to remain in any one place for a number of years.

"In formulating the plan, be governed largely by soil and climatic conditions, the surroundings, exterior views, such as bodies of water and fountains, and any peculiar situations in the contour of the surface that might be taken advantage of in the general scheme," advises this authority.

The plan should be adhered to in every detail and changed only when circumstances arise over which the designer has no control.

ITALY PERFECTS FORMAL STYLE

"The formal style has been brought to its greatest perfection in Italy. In this style, walks and drives are laid out in straight lines, and trees are planted in rows and clipped in odd and grotesque forms. Flower beds are laid out in geometrical figures. Statues, porticos, balustrades, pergolas, and the like are used extensively and ornamental fences or clipped hedges surround the grounds.

"The natural style is the more popular in this country. It is an attempt to imitate nature so far as possible. Walks and drives are curved, open lawns secured, trees grouped, and shrubs planted in masses. Fences are dispensed with whenever possible, and artificial designs are entirely out of

"For city or town lots, use the formal style. Very little planting can be accomplished and whatever planting is done should be in the rear or along the border. A few shrubs may be planted in the angles of the buildings and vines may be allowed to climb over the porches. The smallest composition is often the most difficult to design and requires judgment and good

CHANCE FOR NATURAL LANDSCAPE

Large suburban homes and country places afford splendid opportunities for the development of the natural pleasing variety of design. It is possible to have small bodies of water, create groves, place large groups of an open lawn.

Walks should be placed where they "Very little interest has been taken are needed and should be direct. in the branch of agriculture known as Curved walks and driveways are more artistic than straight ones but there should be good reasons for the curves. districts, however, are now expending Walks should be constructed from money for landscaping school grounds one point to another in the easiest and

Those adjacent to the building may be made of concrete, stone, or brick. "It is believed that one way to keep Gravel, sod, or tanbark is especially amount of traffic they are to accommodate and should be constructed from both the utilitarian and ornamental points of view.

GREENSWARD TAKES VIGILANCE

One of the most valuable adjuncts to the home is a well kept greensward. Eternal vigilance is the price of a beautiful lawn. Procure good, rich soil, for the top layer, at least, even though it is necessary to transport it from a distance.

Select a grass adapted to the soil and climatic conditions with which it will have to contend. On heavy soils such as are generally found in the north and middle west, the handsome south, use Bermuda grass or white clover. Lawn mixtures are rightly looked upon with suspicion. A good combination, however, may be obtained by mixing bluegrass and red-

One must keep the grass trimmed if one desires a lawn and not a hay field. Watering is imperative in some places and should be applied intelligently. Spraying lightly does no good and is positively injurious, as it brings the young roots close to the surface where they become susceptible to injury. Water the lawn thoroughly when necessary, applying the water late in the day. Dispense with frequent light waterings. Under certain conditions, it is advisable to use subirrigation.

"Probably the most important feature in the beautifying of home grounds is the proper selection and arrangement of plants," declares Professor Ahearn. "It is a problem calling for skill, experience, and sound judgment. The artist should have a mental picture of how the estate is going to look 20, 30, or 50 years after its conception.

WHAT TREES TO GROW

upright habit of growth, such as the pin oak, the hard maple, spruces, and tions should be taken against fire. junipers. Set out a few shrubs like These trees when planted in the hitthe purple fringe bush, the barberry, and-miss fashion, 10 to 12 feet apart, feet thick.

they are.

the residence and whenever possible them, and drift on the leeward side. send the drives to the side and rear of the dwelling. If the acreage set aside for ornamental purposes is large, group trees of the same variety, as, for instance, white oaks and willows. Use the same system for shrubs and hardy perennials.

"The house is the principal feature in the landscape and all planting must be done with reference to its position vistas that will furnish pleasing outlooks. Plant rare and beautiful specsightly objects, and take advantage of all exterior views that would endear themselves to lovers of nature.

"Mass plantings will give the best effects, but there are many plants that rious tasks she must do each day," are able to show their excellence only when used as individuals. A few shrubs placed at the foundation of the building will unite the structure with the grounds. Hardy vines clambering takes to perform certain duties, such over the porch or scaling the side as washing dishes and making a cake, walls will produce the same effect to a greater degree.

DON'T CENTER FLOWER BEDS

"Flowering plants and those with ornamental foliage will add their full quota of beauty to the general arder no circumstances, however, should the flower beds be placed in the center of the lawn. For two or three months they may be beautiful but for the rest of the year there is an ugly scar in the landscape. Plant them close to the foundations of buildings, along the boundaries, or in the back yard.

"To obtain privacy or for the purpose of protection from stray animals, use a hedge instead of a fence. A charming plant for this purpose in climates where it does not winterkill, is the California privet. An evergreen hedge that will prove effective can be procured by using red cedar, Chinese arbor vitae, or the fragrant honeysuckle."

Professor Ahearn advises care in pruning, cutting the grass, fertilizing, keeping up roads and walks, cultivation, and watering. Keep the grounds as neat outside as the housewife keeps the home inside.

PRAIRIE FARM ALWAYS NEEDS GOOD WINDBREAK

Trees Add Beauty to Home Place as Well as Help Distribute Snow -What to Plant

A good windbreak is an essential on otherwise form drifts in the yard and feed pens in the winter.

For the central and western sections of the state red car, Austrian pine. Scotch pine, and Chinese arbor vitæ are recommended by Charles A. Scott, state forester. These trees should be planted not later than April. Stock 12 to 15 inches high should be used.

First dig a hole 18 inches deep and 2 to 3 feet in diameter, suggests Professor Scott. Fill it up with surface soil until it is 10 inches deep. Set the trees and spread the roots naturally. Then fill the roots over with dirt until it is level with the surface and tramp the dirt firmly. Fill the hole with loose soil until it is again level with the surface.

To avoid injury from the dry winds, protect the stock by placing box boards or shingles on the south and southwest sides of the trees. The roots should not be exposed to the air in planting. To avoid this, keep the roots covered in a thick puddle.

Sufficient cultivation to keep down weeds is necessary the first year. Once established, the trees recommended are the hardiest that grow. "For small areas, select trees of an Their leaves will burn as readily as ordinary dry leaves, so that precau-

the Siberian pea, and some of the will in a few years afford good pro- PLANT ROWS FAR APART spireas. Don't make the mistake of tection from the wind and snow. They planting too many specimens, as this develop branches near the ground, and makes the grounds appear smaller than retain their foliage through the year. Trees that do not branch near the "Work for an open lawn in front of ground allow the snow to blow under

HOUSEKEEPER CAN CUT ROUTINE LABOR IN TWO

Regular Plan for Work Will Enable Her to Perform Same Duties in Half the Time

A housekeeper can reduce by onehalf the amount of labor expended in and style of architecture. Provide the regular routine of duties, through the adoption of a schedule or a sys tematized plan of work, asserts Miss imens in the foreground, screen all un- Stella Mather, lecturer in the division of extension, Kansas State Agricultural college.

"In the first place the housekeeper should make out a schedule of the vasays Miss Mather. "Think of all the things that have to be done each day, and then those that have to be done but once a week. Note how long it and give allowance for that time in the schedule.

"Meals should be planned in advance. It saves time to note the contents of the refrigerator and make use of the leftovers in planning meals. Desserts may be prepared in the morning. The use of the fireless cooker saves time. Cereal for breakfast may be started the night before and also such fruits as prunes, and even rice for luncheon the following noon."

The importance of having a definite place for every utensil and all food materials so that no time is lost in looking for things, is emphasized by Miss Mather.

HOMEMADE CANDY FOR KIDS, ADVISES COLLEGE PHYSICIAN

It's Hard to Hold to Rule, However, Sh Concedes-Palate Makes Demands

No candy for children under five. and homemade candy in limited quantities for all others, advises Dr. Marie A. Greene, physician at the Kansas State Agricultural college.

"Fruit sugars satisfy the natural craving of the child for sweets," says Doctor Greene, "and are a surer safeguard against a deranged digestion and temper than the candy shops can ever offer. It is difficult to lay down hard and fast lines of either advice or conduct and hold them. This is particularly the case when the palate makes louder and more insistent demands than does principle.

every prairie farm. It not only adds from eating candy lies in the direction tural college. Not only do they make luxuriant carpet of green. Farther beauty to the farm by the addition of of its wrong appeal. Children cannot themselves valuable as watch birds trees, but is also beneficial in evenly accept it merely as a sweet necessary distributing the snow, which would to the body, but will eat it between wild game flavor, they are coming into meals and upset the whole digestive favor as food. system."

OTIS HALL MAKES RECORD IN ADDRESSES IN SCHOOLHOUSES

Boys' and Girls' Club Expert Organizes Many Agricultural Societies

Addressing 49 schoolhouse meetings of old and young in fourteen days, with an attendance of 3,000 people, would be a big record even in a political campaign. This record has just the month of March, and the meetings all were for the purpose of organizing agricultural clubs for boys and girls. At one meeting in Finney county, seven pupils drove a mule team hitched to a spring wagon 20 miles in order to attend one of these meetings.

The United States produces 29 of the 66 epoch-making inventions; England, 17; France, 10; Germany, 5; Italy, 2; Brazil, Austria, and Sweden, 1 each.

It has been estimated by the United States Geological survey that North tons of lignite in beds more than three

IT'S GOOD WAY TO HANDLE CORN IN WESTERN KANSAS

Crop Specialist Explains Method in Detail -Wheat Can Be Sown Rapidly at Proper Time-Plan Meets Objections to Summer Fallow

"Planting corn rows twice as far apart as the usual distance is a method which should be tried in western Kansas more than heretofore," says G. E. Thompson, specialist in crops in the division of extension, Kansas State Agricultural college.

By this method, Mr. Thompson explains, ground for corn is prepared in the ordinary manner, the rows being listed 42 inches apart but only alternate rows being planted, thus making the actual rows 84 inches apart. All the ground is cultivated and handled the same as if corn were planted in each row.

When wheat seeding time comes, the wheat is sown between the rows. A gas or water pipe is bolted to the front of the drill and the ends of the pipe are bent out and backward past the drill wheels. By this arrangement, if one drives between the wide spaced rows the wheat can be put in rapidly with an ordinary drill, without knocking off many ears of corn. The corn can then be husked when mature enough and the standing stalks left in the field will be helpful in catching the snow during the winter.

This method is advocated especially for those farmers who do not take kindly to summer fallow. Many object to the summer fallow because it means working the ground for a considerable time before the crop is secured and because unless it is done correctly there may be danger of soil blowing.

"By the suggested method of planting corn," comments Mr. Thompson, results approaching those of summer fallow are secured while none of the disadvantages of summer fallow are encountered. Corn planted by this method in 1913 and 1914 at the Tribune station in western Kansas outyielded fields planted in the regular way. In 1915, which was an unusually wet season, the regular method of planting outyielded the wide spacing method."

GUINEA FOWLS ON EVERY FARM, LIPPINCOTT'S IDEA

They're in Favor as Food in Hotels and Restaurants, Points Out Poultry Professor

Every farmer should keep a few guinea fowls, in the opinion of W. A. Lippincott, professor of poultry hus-"The greatest danger to children bandry in the Kansas State Agricul-

"Formerly hotels and restaurants served grouse, quail, and other wild game birds, but now, on account of the enactment of game laws, they are forced to find a substitute. The guinea fowl makes an acceptable substitute and is being used increasingly because of its similar taste."

Due to the small size of the guinea egg, the raising of guineas for egg production is not advised by Professor Lippincott. The guinea egg is been made by Otis E. Hall, in charge classed as a second. If the demand of the boys' and girls' clubs in the for the wild game taste is to be satisdivision of college extension, during fied, however, the production of guineas for the market should become profitable.

Especially is the guinea a source of profit when raised on the farm in small numbers, since the food that it eats in ranging over the farm is just waste food that probably would not be utilized otherwise. The guinea fowl does not stand confinement well, but on the farm where it can have free range the conditions are nearly ideal for this

Guineas can be raised by use of incubators, but the method which proves most satisfactory is to use hens, or, better yet, bantams, for brood moth-Dakota contains 697,000,000,000 short ers. Then the wild nature of the guinea will be moderated and the birds can be cared for more easily.

Volume 42

Kansas State Agricultural College, Manhattan, Saturday, April 15, 1916

Number 27

TURN WASTE INTO CASH

EXPERIMENT STATION EXPERTS USE BY-PRODUCTS FOR FEED

Winter Tests Made at Hays Show How Ma terial from Grain Farming May Be Utilized in Maintaining Cattle Cochel Explains Results

That methods of feeding live stock in Kansas-particularly western Kansas-will be revolutionized and the cost materially lowered, is indicated Fort Hays Branch experiment station. heifers fed kafir stover and alfalfa on

annual round-up at Hays April 7.

farming that would otherwise have no

value," explained W. A. Cochel, professor of animal husbandry in the

that was badly damaged and of no

"The rough feed should be worked

off first in wintering live stock. The

best feed should be saved until the

"The station is working to determine

a market for the grain and hay prod-

ucts. Live stock feeding operations

are a means of marketing that which

COMPARES KINDS OF ROUGHAGE

In one experiment, the object of

which was to determine the relative

values of several kinds of roughage,

100 head of three-year-old heifers were

used, and these were divided into five

lots of 20 each. The tests covered a

period of 120 days. Maintenance in

agricultural college.

commercial value.

last of the season.

that has lost money.

is produced."

to turn into cash by-products of grain range fed.

marketable form. Alfalfa was used straw.

The feterita silage was relished although much of it was a little dry and slightly moldy. The kafir silage was better preserved and more palatable than the feterita. The amount of grain was approximately the same in each kind of silage, but fully half the grain was immature. Cattle were fed according to appetite-economy considered. Considerable waste of kafir stover and Sudan stover took place.

The value of alfalfa as a feed for cattle was fully demonstrated. Aniby the report of the results of winter mals to which alfalfa was fed had a feeding experiments conducted at the sleek and prosperous appearance. The

showing, not because of the combina-

The average daily gain of the heif-

ers fed kafir silage and alfalfa was .87

of a pound, while the average daily

cost for feed was 6.1 cents. The av-

HERE ARE ESTIMATED VALUES

Feed values estimated per ton fol-

low: all silage, \$2.50; kafir stover,

\$1.50; Sudan stover, \$4; alfalfa, \$6;

The heifers were with calf during

weights of the lots. Cows and calves

wheat straw, 50 cents.

The results were given at the third the range lot did not make so good a

"The purpose of our experiments is tion of feeds, but because they were

"Fully 50 per cent of the feed given erage daily ration consisted of 16.4

the heifers in our experiments would pounds of kafir silage in good condi-

not have been worth a nickel had we tion, 13.8 pounds of alfalfa hay in fair

not had cattle to feed-it was not in condition and 1.1 pounds of wheat

economical methods of producing beef. in the last twenty days. The distribu-

Live stock valued at more than \$50,000 is maintained at the station. This includes 500 head of beef cattle, 300 head of sheep, 300 head of hogs, and 110 head of horses and mules. All of this stock is used to determine profitable methods of farming in the short grass country.

BOARD MEMBERS AT MEETING

E. W. Hoch, member of the board of administration and former governor of Kansas, welcomed the stockmen. He emphasized the desirability of working towards efficiency and pointed out that efficiency is the slogan of the station.

Ed. T. Hackney, president of the board of administration, was present this test, and one-third of them calved and gave the visitors the "glad hand."

MEET AGAIN APRIL 20

commissioner.

phasized.

husbandry.

owned in Kansas.

tered in America.

The formation of hog cholera eradi-

cation associations in counties of the

and make a hospital-clean up the

pens and apply the proper disinfect-

ant-this was his advice. The desir-

ability of getting a competent man to

direct the cleaning operations was em-

Dairymen were urged to have the

tuberculin test applied to their cows.

KANSAS LEADS IN GALLOWAYS

Kansas leads all other states in num-

ber of registered Galloway cattle, ac-

cording to R. W. Brown of Carrollton,

Mo., secretary of the American Gallo-

way Breeders' association, whose pa-

per on "Kansas Galloways" was read

"The first volume of 'The American

Galloway Herd Book' was published in 1883," read the paper. "It con-

tained 660 pedigrees, the number

recorded in the first 11 years of registration work in connection with the

Galloway industry in America. Of this number 24 were recorded as being

"Since that time the breed has

steadily gained in popularity in the

state until today Kansas records 40

per cent of all the Galloways regis-

"The breed is pretty well distributed

over the state, but the banner counties are Ellis, Wallace, Hodgeman, Pawnee,

Reno, Harvey, Harper, Butler, and

Shawnee. The largest herd of Gallo-

ways in the world is owned by E. J.

COLLEGE WAS THE PIONEER

"The first Galloway recorded as

owned in Kansas was the bull, Billy

Hood 351, owned by the Kansas State

Agricultural college, and the first Gal-

loway recorded as bred in Kansas was

Because large shippers of live stock

are decreasing in number yearly in the

readjustment of the marketing system,

the small producer and shipper must

be considered, according to M. L.

McClure of the federal reserve bank,

"The National Live Stock ex-

change," said President McClure, "is

now engaged in a publicity campaign

against the practice of the packers,

lately started, of buying in the coun-

try. This is detrimental to the inter-

ests of the producer and the shipper

because it narrows the market and al-

lows the five large packing concerns

WHY? PROFITS, OF COURSE

"What other reason than a profit

can the packer have who goes to the

country and buys? Packers own most

of the stockyards, and if the stock

came to the markets, they would receive

a profit in the way of yardage and

feed. They must, therefore, have a

greater profit in sight when they go to

"Twenty per cent of the hogs now

received at Kansas City go direct to

the packing houses without being of-

fered on the open market. They are

paid for on a basis of the prices ob-

tained for live stock on the open mar-

to control prices.

the country to buy.

ket at Kansas City.

Banking to the Cattle Industry.

a cow bred by the same institution-

Maggie 452 out of Lassie 445."

Guilbert in Wallace county.

state was favored by Mr. Mercer. One does not need to whitewash

STOCKMEN WILL GATHER FOR AD-JOURNED SESSION OF ROUND-UP

President Waters Will Be on Program-Heavy Snow at Hays Cuts Down Attendance on Regular Date, but Enthusiasm Runs High

An adjourned session of the third annual round-up at the Hays Branch Experiment station is scheduled for April 20 with Dr. Henry J. Waters, president of the agricultural college, as one of the speakers. Attendance at the April 7 round-up was cut down by a seven inch snow, but enthusiasm was so much in evidence that decision was made to continue the winter experiments for the time being and give the several hundred stockmen who had planned to reach Hays by motor car an opportunity to inspect the feed lots and listen to addresses at a later date.

C. R. Weeks, superintendent of the branch station, who did everything possible for the entertainment and comfort of the visitors, explained briefly the valuable work of the station in the direction of solving important feeding and other problems for the stockmen and in the improvement of grain and forage crops in coöperation with the United States department of agriculture. Increased production, which results from findings of the station, brings returns many times greater than the money expended for its up-

While the morning session was in station has not fed a load of cattle did not affect materially the total put into operation in the building in which the stockmen were assembled. "The station uses cattle to furnish were all included in the final weights. Midwinter atmospheric conditions pre-

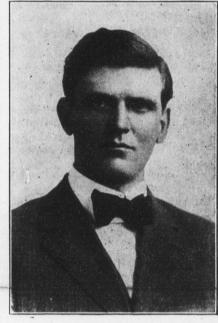
HOGS BRING BIG PROFIT Mercer of Topeka, live stock sanitary

> UTILIZE FEED MORE THOROUGHLY THAN OTHER ANIMALS

> Pork Makes Efficient Food for Human Beings, Points Out Prof. W. A. Cochel-Gatewood Tells How to Keep Young Pigs Thrifty

One bushel of corn without supplements will yield 10 pounds of pork under farm conditions, and 10 pounds of pork will feed more human beings than the same amount of any other meat, asserts W. A. Cochel, professor of animal husbandry in the Kansas State Agricultural college.

"Hogs return more profit than any other farm animals because they utilize the feed more thoroughly," says Professor Cochel. "When hogs are by W. A. Cochel, professor of animal ready to go on the market, they yield



W. A. COCHEL

proportionately more meat than any other animals. Not only do they make good gain, but one pound of pork will feed more human beings than any other animal flesh in the same quantity. Hogs are more efficient in the production of meat and in the feeding of the human animal.

"Years ago China found that hogs turn the product of the farm into more meat than any other animal except Kansas City, Mo., and president of poultry. Hogs as they are used here In the last four years the experiment tion of calves was unequal, but this progress six or eight oil stoves were the National Live Stock exchange, are primarily animals which are dewho read a paper on "The Relation of veloped to consume concentrated feeds.

HOG AS PRODUCE MARKET

"The profit of the hog industry depends on whether the farmers can produce feeds on their farms suitable for hogs. This is especially the case in Kansas, where alfalfa and corn is raised. Farmers should be encouraged to raise enough hogs to consume the feed produced. This practice will give the farmer good meat as well as better return for the feed raised. The man who stays with the hogs year in and year out, despite the ups and downs, will prosper in the hog business. This will give him a most intelligent system on which to build his live stock industry. The hog will be the market for his farm produce.

"One bushel of corn fed without supplements will yield 10 pounds of pork. In Kansas hogs are handled to advantage because of a favorable climate and growing season.

"The farmer can buy concentrates required and make necessary supplements. He can use what skim milk and buttermilk he has on the farm and purchase tankage, meat meal, and linseed. Corn and skim milk come near to being a complete ration. No mat-If milk is not available buttermilk, provided it is not adulterated, may be

(Concluded on Page Four)



good condition through the winter was desired more than gain. The following combinations were fed in the respective lots: feterita silage and alfalfa; kafir silage and alfalfa; kafir stover and alfalfa; kafir stover and alfalfa on range lot; and Sudan stover and kafir silage.

The average gain per head for the lots in the order named was 71.3, 104.8, 63.5, 3.5, and 31.5 pounds. The average cost of feed per head was \$7.54, \$7.32, \$6.26, \$5.35, and \$5.64 respectively.

Kafir silage and alfalfa produced ver and alfalfa combination fed on day. the range lot made a comparatively poor showing. Although the feterita be bred soon. The other half will be alfalfa, the average gain was 33.5 of breeding upon the development of pounds less.

40 Hereford heifers were fed silage, turned the trick and full justice was alfalfa, and straw, while another 40 done to an excellent lunch. Music was were given the same feed with the ad- furnished by the Fort Hays Kansas dition of 4.54 pounds of corn and cob Normal school band. the greatest gain, while the kafir sto- meal and one pound of linseed meal a

Half of the heifers in each lot will silage and alfalfa were fed at a some- bred next year. The object is to learn what higher cost than kafir silage and the effect of the feeding and the time

(Concluded on Page Four)

In another test of the same duration vailed in April. Later hot coffee

The first thing on the program for the afternoon was the inspection of the experiment lots. Then, because of the weather, decision was made to adjourn to the normal school for the afternoon session.

Many problems of general interest to stockmen were discussed by J. H.

"A packing house buys in the country and receives direct at its plant, say 2.000 hogs. That day it stays out of ter what ration is used, hogs will do the market, and so with one of the better if a little skim milk is added. main buyers out the market competition is reduced."

"If the cattle feeder continues to (Concluded on Page Three)

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Newspapers and other publications are invited to use the contents of the paper freely

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SATURDAY, APRIL 15, 1916

Villareal has been captured all right but he doesn't seem so satisfactory a prize as the real Villa.

New York has decided to retain the Bowery-like a great many things in that city, for the sake of the visitors

College courses for policemen are offered by the University of California. But the cooks and nursemaids have already given the cops the degree of bachelor of hearts.

WHY LIVE STOCK?

Students of agriculture for 20 centuries have urged the value of live stock to the farmer. The domestication and raising of animals represent, it has been regularly recognized, a high stage in the progress of the race. At the present day this is indicated by the general prosperity of stock farmers and their interests in community bet-

In spite of the high place that we assign to stock raising, however, we are inclined to forget the specific benefits that come from it. It retains the fertility of the soil, thus preventing any is worth the rental, and thus condones decline in the value of the land; it makes possible the use of waste products of grain farming, thus increasing the annual income; it makes possible the distribution of labor over the year, thus enabling the farmer to employ better help and economize in numberless ways. These are only a few of spread effort to make rural conditions successful live stock farming.

BUILDING VOCATIONAL EDUCATION

That the value of vocational education is being recognized in the east as well as the west is shown by the interest that attached to the recent dedication of new rooms for the American University of Trade and Applied Commerce in Philadelphia. President Hibben of Princeton university, President Woolley of Mount Holyoke, and other educators from conservative institutions spoke at this occasion.

The university is in reality a trade school, charted eight years ago for the benefit of the John Wanamaker employes. Similar institutions, not so elaborate as a rule, are being maintained by employers elsewhere. An example of this type of school in the west is the one maintained by the Lakeside press in Chicago.

The existence of these schools indicates that there is a lack of proper vocational training in the public schools, and in many places, instead of educators leading, business men are blazing the way to an effective system of vocational education. As a matter of fact, so far as trades are concerned, the nation is just between the old apprentice system and a modern educational plan. Educators had nothing to do with the apprentice system, and now that it has bandits and their victims. But the largely lost its vigor, insufficient provision has been made by educators to fill its place.

One cannot, with any certainty, predict the future of vocational education. Properly carried out, it will mean an enormous advance in the productive capacity, the moral life, and the happiness of the people of the country.

A WORTHY ENTERPRISE

The student loan fund started in the college, will doubtless prove one of the most beneficial enterprises ever begun by the institution. A great many students of the institution are entirely self-supporting and must spend order to meet their expenses. The tendency of this is to reduce their efficiency in study or to make them spend an unduly long time in completing their courses. It is these students, who are seeking an education because they realize definitely its value, that a particular effort should be made to assist. They have the qualities which will make for success and service in their life work. A little help from a loan fund will enable them greatly to improve their efficiency in college.

As President Waters pointed out in his address to the Kansas City alumni, it is not a bad thing for a student to leave college with a small debt which he has incurred in obtaining an education. It will tend to develop in him habits of thrift which are likely to be carried through life.

Many institutions now have extensive loan funds, yet there is probably no institution in which such a fund will be of greater value than in the Kansas State Agricultural college.

DEFACING THE RURAL LANDSCAPE

A reader who is vitally interested in agriculture and who travels over the country considerably more than does the average man, calls on us to condemn what he picturesquely terms "the unholy smearing of the face of nature with a glare of vermillion red and ochre yellow." We understand what he means and

quite sympathize with his view. Lest the point may be missed or obscured by the colorful language of our correspondent, we state plainly that he is shooting at the practice of daubing signs of patent medicines or tobacco on barns, sheds, and fences. We suppose that the farmer gets paid a rental for this space by the sign writers. Possibly in some cases he is persuaded that the preservative effect of the paint the offense. If he is a public-spirited citizen, possessing a keen sense of his responsibilities toward making his community outwardly more attractive; if he stops to think of the educational effect on his children of these hideous daubs; if he will consider the widethe important things that are worth more tasteful, artistic, and attractive, on the gallows or otherwise perish ly of "Rules of Thumb, and the Steel wheeling the baby, working in a garkeeping in mind as accompaniments of conserving and augmenting the beauty with their boots on, if they didn't get Square," in a recent number of Car- den, running errands, mowing lawns, decline to permit his buildings to take on that "unholy smear," and in the event that the damage has already been done he will resolve that at the end of the contract with the sign writer he will repaint the barn and efface the daubs. He may have a little less cash as a result of this resolve, but a lot more self-respect. Why should the farmer wear the sign on his buildings of a patent medicine or a brand of tobacco?

Possibly he may be ahead of the game financially by getting one side of his barn preserved in this glaring cheap paint, but here is how it worked out actually in a New England town. The merchant refused longer to extend credit to a farmer who let his barn be smeared with a medicine sign, because he took it as clear evidence that the man had not the means to buy paint and apply it himself and therefore he considered his credit shaky!_Breeder's Gazette.

GREETING AN OLD PERIL

Chicago is a great industrial center, and among other commodities, the output includes a large number of boy bandits. This is too bad for the boy says the worst evil influence in that neither a cat nor a dog, cannot help vacancy in the rank of captain.

direction is the bandit literature, which makes the highwayman something of a hero, and leads many ambitious youngsters to try to go and do likewise. This is refreshing if not instructive. Here lately other reasons have been cited; the movies were blamed, and cigarettes and the gang habits of the boys not properly directed by the Boy Scout movement. But to one who was a boy a good while ago, it is interesting to note that the old peril is still on the job, and is still regarded, at least by some, as the a large amount of time in labor in worst of all evils. How dear to our heart are the scenes of our childhood, and the old hay mow in which we read of the daring deeds of the James boys,

feeling that in a case of government it would be for the greater good of the greater number that the somewhat clumsy hardheadedness of dogs should be tempered by the delicacy and the intuitive cleverness of cats.-A. M. Dewsmith.

A QUARTER CENTURY AGO Items from The Industrialist of April 18, 1891

The Ionian exhibition comes next

Professor Failyer's children are just recovering from an attack of scarlet

Boarding clubs are becoming a popular as well as an economic mode of living among the students.

Live Stock Among the Ancients

Marcus Terentius Varro

THE most important persons of antiquity were all keepers of live stock, as both the Greek and Latin languages reveal, as well as the earliest poets, who describe their heroes some as rich in lambs, some as rich in sheep, and others as rich in herds, and tell of flocks which on account of their value were said to have golden fleeces, like that of Atreus in Argos which he complained that Thyestes stole away from him: or that ram which Æetes sacrificed at Colchis, whose fleece was the quest of those princes known as the Argonauts: or again like those so called golden apples of the Hesperides that Hercules brought back from Africa into Greece, which were, according to the ancient tradition, in fact goats and sheep.

If cattle had not been held in the highest esteem among the ancients, the astrologers would not have called the signs of the zodiac by their names in describing the heavens: and they not only did not hesitate to place them there but many even begin their enumeration of the twelve signs with these animal names, thus giving Aries and Taurus precedence over Apollo and Hercules, whose signs, very gods as they are, are subordinated under the name of Gemini: nor did they deem that a sixth of these twelve signs was a sufficient proportion for the names of cattle, but they must even add Capricornus and make it a quarter. Furthermore, in naming the constellations they selected other names of cattle, as the goat, the kid, and the dog. And in like manner have not certain parts both of the sea and of the land taken their names from cattle, as witness the Ægean Sea, which is called after the Greek name for goat, and Mount Taurus in Syria after the bull, and Mount Cantherius in the Sabine country after the horse, and the Thracian, as well as the Cimmerian, Bosphorus, after the ox: and again many place names on land like the town in Greece known as horse breeding Argos. Yea, Italy itself derives its name, according to Piso, from "vitula," our word for heifer.

Wild Bill, Diamond Dick and other Rough Characters. And of course ceived this week several fine pieces of there were warnings from the folks apparatus for immediate use in illusand the teacher that boys who trifled tration. with such literature were likely to die of nature rather than defacing it; if he sent to the penitentiary to learn a really glimpses this situation he will good trade. And yet, among the boys of that neighborhood who maintained a circulating library of that sort, erlet of hay, and today is brilliant none has spent much of his spare time with bloom. in our leading jails or prisons. Which is a memory without a moral, for there is so much good literature that it is foolish to waste one's time on trash. But the devilish influence of the bandit stories is largely overestimated, and worse stuff sometimes invades quite reputable magazines. Also, the boy who is disposed to go to the devil will usually find his way without printed

DOGS AND CATS

directions.-Atchison Globe.

Speaking generally, dogs are masculine and cats feminine. If one speaks of a gay young dog, or a nasty old cat, it is unnecessary to explain that the former refers to a man and the latter to a woman. The attitude of dogs toward cats is, too, in many respects suggestive of the attitude of man towards woman-that is, of men as a class towards women as a class. Every dog of spirit despises cats in his heart of hearts and thanks Heaven he was born a dog. If it were suggested to dogs that they should extend the franchise to cats they would laugh the sugresult right now concerns us less than absolutely refuse to allow cats to vote. amination for promotion, and will an alleged cause. An investigator And yet an impartial observer, who is now have the pleasure of awaiting a

The department of physics has re-

pentry and Building.

Our dormant peach orchard was yesterday aroused from beneath its cov-

The "P. M." boys played a game of ball yesterday against a nine picked from the college. The score stood 2 to 12 in favor of the "P. M." boys.

The monthly union meeting of the Young Men's and Young Women's Christian associations was held last evening with an interesting program.

The latest addition to the bound volumes of the library bears the number 10,852. Several hundred are now at the bindery and soon to be added to the list.

The printing department is engaged on a pamphlet of "Scales of Points Used in Judging Cattle and Sheep,' compiled by Professor Georgeson for the use of the class in agriculture.

The chapel roll shows 171 young women and 270 young men. This gives a total of 441 against 364 last year at this date. The total enrolment for the year now reaches 586, a gain of 72 over last year's catalogue.

Lieutenant and Mrs. Bolton returned yesterday from their visit to the eastern part of the state. The ing boy or girl in a comfortable home, gestion to scorn. They would, in fact, lieutenant passed an exhaustive ex-

THE COUNTRY FAITH Norman Gale

Here in the country's heart Where the grass is green, Life is the same sweet life As it e'er hath been.

Trust in a God still lives, And the bell at morn Floats with a thought of God O'er the rising corn.

God comes down in the rain, And the crop grows tall-This is the country faith, And the best of all.

SUNFLOWERS

Our friend, Mr. Villa, having lost his leg, his life, all his forces, and himself, will certainly be hard to find. We should be patient.

Why doesn't somebody that has nothing to do and plenty of time to do it work up some piffle on the psychology of pink teas and formal receptions?

YES, SIS, HE GOT LIGHT-HEADED Mary had two little lamps, The soft, come-hither kind; She let them shine on Percy and The deah boy lost his mind.

The many friends of Kansas City will be pleased to note that she recently staged one of the most advanced elections ever put on by any municipality in the United States. She may now without presumption throw up her head with pride when such towns as Terre Haute, Ind., are mentioned.

Readers of the daily newspapers are reminded by these presents that the war in Europe has not closed down. It has merely ceased to be news. If you search diligently through your favorite daily, you will see that every day or so each side succeeds in recapturing a hill that it successfully defended the day before.

The annual parade of pietism and respectability will take place again this Easter. All attempts to diminish its intensity will be futile, as usual. Somehow or other the thing has got into our blood and we can't get along without parading. Anyhow, the only people who protest against such practices are either poor or honest, so no attention need be paid to them.

WORKING IN VACATIONS

In some places where child labor legislation is under discussion, attempts are being made to secure exemptions for children of the poor so that they may work during the long school vacations. This sounds reasonable until it is analyzed. A few hours work in Professor Hood writes entertaining- an otherwise idle day, work such as is not likely to hurt a growing boy or girl. And that is the kind of thing people in the average small city or town think of as vacation work.

> But that is not what the agitators for vacation work are after. They want children to work in factories or canneries, shutting them up during the hot summer, letting them out too tired to play, often too tired to sleep.

> The theory underlying the closing of schools for the summer is that the children need the rest during the heated period of the year. The vacation is given that they may be free to pick up new strength and robustness in the outdoor air. If instead of getting this, the children are to be shut up in places far less wholesome and comfortable than school rooms, the schools had far better stay open.

> Many cities, in fact, are establishing vacation schools for the purpose of keeping children in crowded districts off the streets. In neighborhoods where homes are less desirable than schoolhouses and their grounds, this is wise. In happier communities where back yards abound and there are whole skyfuls of fresh air, the need is different. Two or three hours of household or outdoor chores never hurt a growand the educational value of them is very great. But this issue is not to be confounded with exemptions for shutin slavery. - Salina Journal.

R. W. Getty, '12, is managing dairy farm near Downs.

Mrs. Ethel (Marshall) Anderson, '14, was a college visitor Wednesday.

Dr. John T. Wilson, '10, is practicing veterinary medicine in Seiling,

Miss Ethel Hotte, '14, who is teaching in Illinois, spent the week end in Manhattan, visiting her parents.

Mrs. Maud (Harris) Gaston, '08, and daughter Elizabeth are visiting at the home of her parents on College hill.

FOR LOAN FUND

Arthur Capper, governor of Kansas, has just made a subscription of \$100 to the loan fund planned for students of the Kansas State Agricultural college. Dr. H. J. Waters, president of the college, presented the plan of a loan fund to the Kansas City alumni at their annual banquet and Governor Capper, reading of the matter in the dispatches, made his contribution unsolicited.

President Waters has arranged that the royalties coming to him from the use of his book, "The Essentials of Agriculture," in the Kansas schools become a part of this fund, and the Kansas City alumni are starting a campaign to duplicate the amount brought in by the royalties. It is being pushed by H. C. Rushmore, '79, and other prominent graduates. The fund will be of great assistance to the college students, a large proportion of whom are self-supporting.

L. R. Eakin, a Manhattan merchant, has subscribed \$100 to the fund. N. A. Crawford, professor of industrial journalism in the college, has subscribed \$20. The Women's Social club has voted to use the balance in its treasury at the end of the college year for loans to young women students. This amount will be probably \$40.

Miss Georgia Canfield, '12, is just finishing her third year of teaching diately proceed upon the belief that home economics in the Alliance (Nebr.) high school.

just completed a very successful term memorial in a more unselfish and imof school near Smith Center, was a measurably better way, and lay the college visitor recently.

Grover M. Pratt, formerly instructor in the college, visited in Manhattan this week. He is teaching art in the Sioux City (Iowa) high school.

I. D. Graham, formerly secretary of the college and later connected with the Kansas Farmer, is meeting with success as editor of the Rural Spirit, a weekly farm paper published at Portland, Ore. In a recent issue appears a front page picture of the members of the convention of the Idaho county agriculturists, among whom are five former students of the Kansas State Agricultural college, D. W. Working, '88, W. N. Birch, '04, H. A. Ireland, '07, W. T. McCall, '08, and F. L. Williams.

MARRIAGES

BRANDT-ANDERSON

Miss Dolly Brandt and Mr. George E. Anderson were married at noon Monday at the home of the bride's parents, Mr. and Mrs. H. M. Brandt, Manhattan. Both Mr. and Mrs. Anderson are former students in the college. After a trip to Chicago, Cincinnati, and Cleveland, they will make their home in Shelby, Ohio.

AMENDMENTS ARE OFFERED

The following amendments to the constitution of the Alumni association will be submitted for approval at the annual meeting of the association on June 14:

To add to Article III the following

Section 6. The dues of the association shall be \$1 a year, or members may become sustaining life members by payment of \$15. Funds derived from life membership shall be invested for the support of the projects of the association, and may by consent of the board of directors become part of the student loan fund of the college.

In Article IV, strike out the last sentence of Section 2. Substitute the following for Section 3:

Section 3. The officers of the board shall be the officers of the association.

FROM A LOYAL ALUMNUS

To the Editor of THE INDUSTRIALIST The Kansas City local association met in annual reunion last nightsome 44 of us, including guests, dined from 8:15 to 9:30 p. m.

The occasion was as informal as could be and greatly enjoyed. Some of the more recent graduates, having read THE INDUSTRIALIST'S announcement, availed themselves of the oppor tunity. Among these were Mr. and Mrs. L. B. Mickel, '10, Elma Brubaker and Eva Alleman, '14, and J. D. Parsons, '15.

Officers for the ensuing year were elected: Albert Dietz, '85, president; Maude (Failyer) Kinzer, '03, vice-president; and Arthur Helder, '04, secre tary and treasurer of the deficit.

Mrs. Corinne (Failyer) Kyle of Washington, D. C., was the "surprise guest," and her friends were glad to again see her.

President Waters and Professor Willard represented the college, greatly to our mutual pleasure. Thoughtful and practical talks from these two were really welcomed. The appeal of President Waters for a loan fund was forcefully punctuated with stories of his experience in recent months.

The need of such a fund was outlined by this writer years ago before the alumni association in Manhattan. Our alumni body as a whole and our local associations as units could not possibly perpetuate their loyalty nor make more effectual their philanthropy than by such a founda-

If the Class of 1916 wishes to identify itself imperishably with the future, let its class spirit distinguish between a lamp post, a drinking fountain, or a stone in a building, and the inexpressibly greater service of doing something for human folk.

Suppose these young people immesucceeding classes as well as preceding is the one which tells of things with classes will follow, if led. Let them which the writer is familiar and which Miss Elsie Blaylock, '15, who has use their money proposed for some

> ability to equal their contribution your article to the magazine. through solicitation among his friends of this local body.

If this seems too prescribed, then I feel like volunteering in an effort to proceed alone and single handed to help President Waters attain his fine ideal and ardent hope. I should proceed on the assumption that there are 100 of the alumni body who will subscribe and pay within a year \$50 each, this to form a nucleus around and in which, in time, others will be inter-

Such a beginning will surely interest other friends of young folk. Once begun, the project will attract, and untold and unknown benefit will be extended to worthy young people, whose ideals and aspirations appeal to me with a yearning desire to be of service to them.

If this shall set some one to thinking and some other to doing, President Waters' visit to us will be to him an evening ineffaceably great.

It's a great business to help God bring his kingdom into the world, and it's wonderfully great to help the kingdom of education, nobility, usefulness, power, ideality, and spirituality to become a possible territory of conquest by deserving young folk for whom such a field would be a paradise.

Faithfully yours,

H. C. RUSHMORE, '79. 308 Lawn, Kansas City, Mo.

EDITOR WOULDN'T BE INFLUENCED EVEN BY KAISER BILL

Charles M. Harger Tells Journalism Students How to Get into Magazines-Urges Community Service in Address at Assembly

A letter from Kaiser Bill himself couldn't get an article printed in a magazine unless it was just what the editorwanted, in the opinion of Charles M. Harger, editor of the Abilene Reflector, chairman of the state board of corrections, and magazine writer of national note, who spoke before students in journalism in the Kansas State Agricultural college Tuesday on the subject, "The Magazine Game."

"It is not so difficult to get into magazines as is often supposed," he stated. "Many persons think, however, that a letter of introduction helps to sell an article."

The speaker gave a fable of "the foolish virgin" who, one lovely spring day, provided herself with violet paper and violet ink, seated herself by a window, and allowed her thoughts to roam the rolling meadows and the green hillside. Presently she put her dreams upon paper-both sides-and made a beautiful poem, worthy of publication. This she rolled into a tight wad, wrapped in another paper and sent to the North American Review. Imagine her surprise at its return minus the expected check.

CHECK TO WISE VIRGIN

"The wise virgin," according to Mr. Harger, dreamed of an auto ride with a well-to-do bachelor neighbor. The car broke down in the country. The maiden couldn't go back, she couldn't go forward, and couldn't stay where she was. So the bachelor put his arm around her and asked her to be "his'n." Just then, along came the parson and offered to perform the marriage ceremony. When the wise virgin came out of her reverie, she typewrote the story on one side of white paper and sent it to the Red Book. Presently she received a check for \$75.

"The sole object of the editor is to sell his magazine," asserted Mr. Harger. "So he buys his articles just the same as the farmer buys his cattle or the newspaper buys its paper. He pays what he thinks it is worth.

"There is a larger demand for informing material than for fiction. There is not much place in the magazine for uninformed writing.

"The magazine article which wins reaches the largest number of readers. Furthermore, it must be timety.

"When you begin writing for the foundation of a perpetual loan fund. magazines, select the publication that mand," continued Professor Cochel. The writer hereof believes in his the article will fit. More than this, fit "Young stock should be so handled an hour, \$3.50.

WORLD WANTS TO LAUGH

The speaker declared that the world had little place for the pessimistic story. It has enough sorrow and wants to be made to laugh.

Mr. Harger spoke also to the students at the Tuesday assembly on the subject, "Getting Results."

"You, standing in the center, where the trade currents of north and south, of east and west, come together, hold -and your compatriots in other colleges of the middle west hold-a magnificent inheritance and the possibility of a golden age," was the heart of his message.

"Get out of this old world all you can and then transmit it back to your home community," he urged. "The persons who have a love for the community are the ones who do things.

"There is a new vision in Kansas. There is a new vision in the United States. It is that one owes something to society. To give up things for the community and for society has become the real test of good citizenship."

Mr. Harger told of a revivalist who had observed a change in times, in society, or in himself-he was unable to determine which.

PEOPLE SEEK TO HELP

At the beginning of his evangelistic work, when he came to the conclusion of a heart-touching serman, members fair play."

BUYS WHAT HE WANTS of his congregation would come forward to ask, "What can I do to be saved?" Now, when the same appeal is made, the question is, "What can I do to help?"

The change in attitude is characteristic of the new feeling of obligation to one's fellow men, believes Mr. Harger.

The cartoonist has but one picture for each class of people, he declared.

"He makes the farmer appear as though he were on the way to the poor house, wearing a slouch hat with his hair sticking out of a hole in the top," said Mr. Harger. "I'd like to show him the Kansas farmer in his six cylinder car, with goggles and motoring cap, riding into town.

"He makes the college professor tall, lean, stooped-absentmindedly struggling along with an umbrella under one arm and a stack of books under laughingly turned to the college fac- was 545 pounds, while the average

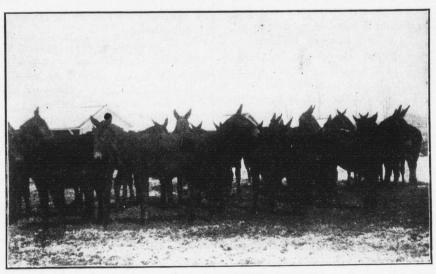
COST OF FEEDING MULE

FIRST ACCURATE FIGURES ARE OB-TAINED BY KANSAS STATION

Colts Are Maintained at Hays for 130 Days at Cost of \$8.16 Per Head-Animals Make Average Gain of 109 Pounds

An experiment for the purpose of ascertaining the cost of feeding mule colts-the first accurate test of the kind-began November 26, 1915, and ended April 4, covering a period of 130 days. The report of this experiment was one of the interesting features of the third annual round-up at Havs.

The total cost of maintaining 31 mule colts, including both feed and labor, was \$252.96 or \$8.16 per head. the other. But"-and the speaker The average initial weight per animal



MULES USED IN THE EXPERIMENT

ulty seated behind him on the stage-'there ain't no such animal."

up to the scorn of the public by the cartoonist-a straight case of libel, thinks Mr. Harger, who termed the college graduate the "leveler of civilization," the one who is remaking the state.

MEET AGAIN APRIL 20

(Concluded from Page One)

lose money he will have to go out of business," declared W. A. Cochel, professor of animal husbandry, who explained the winter experiments. The producer, the feeder, the commission a profit, and it still should be possible for the people of the country to afford to eat meat.

ADAPT METHODS TO FARMS

"The experiment station is trying to encourage the western Kansas farmer in utilizing the best feeds at his comthat it not only will go through the winter in good shape but will make some gain in weight. Too often the wintering period is one of loss, and it takes weeks in the spring to regain this loss.

"The purpose of our experiments is to turn into cash by-products of grain farming that would otherwise have no value. We must adapt our cattle management to our farms in order to get the most out of our business."

Professor Cochel advocated a "safety first" program for Kansas farmers. The farmers should prepare for the normal rather than the abnormal year, he pointed out. Because there was a tremendous corn crop last year is no reason for counting on a similar crop in 1916. Carry over a portion of the feed from year to year to be used in case of deficiency in yield, he advised.

The condition of the live stock market is viewed with alarm by A. E. de Ricqles, president of the Denver Live Stock exchange and chairman of the market committee of the National Live Stock association, who discussed 'The Market Situation."

"Something is seriously wrong," he declared. "The feeders of cattle have met with heavy losses while the packers have made enormous sums.

"We are going to defeat these big fellows through the creation of public sentiment. We are going to demand

weight at the close of the test was 654 pounds, a gain of 109 pounds. The The college student is likewise held mule colts were purchased for the experiment at the time of weaning.

EXPENSES ARE ITEMIZED

Following is an itemized statement of cost of maintenance: 6,510 pounds of Sudan hay at \$4 a ton, \$13.02; 3,380 pounds of cane hay at \$2.50 a ton, \$4.22; 10,115 pounds of alfalfa hay at \$6 a ton, \$30.34; 12,660 pounds of kafir tailings at \$2 a ton, \$12.66; 6,860 pounds of sorghum fodder at \$1.50 a ton, \$5.14; 201 pounds of oats at 45 cents a bushel, \$2.81; 10,664 pounds of corn and cob meal at 93 cents a hundredweight, \$99.18; 1,000 pounds of oil meal at \$1.81 a hundredweight, \$18.10; man, and the packer, deserve to make 239 pounds of oil meal at \$1.54 a hundredweight, \$3.68; 50 pounds of salt at 75 cents a hundredweight, 38 cents; alfalfa pasture, 1½ months at 35 cents per head per month, \$16.27; veterinary work, \$8; 146 hours of men's labor at 21 cents an hour, \$30.66; 150 hours of horse labor at 10 cents an hour, \$15; 100 hours' use of equipment at 3½ cents

COMMUNITY CO-OPERATION IN HOUSEKEEPING PROFITABLE

Women May Combine to Purchase Equipment or to Do Work

Community coöperation in housekeeping is a profitable practice, in the opinion of Miss Frances L. Brown, director of home economics, division of extension, Kansas State Agricultural college.

"The housekeepers of a community," says Miss Brown, "may combine as a club to buy a good vacuum cleaner, each family using it a certain time each month. The equipment of a simple laundry may be purchased. This laundry should be open to all members of the club at some time. The machine and wringer may be operated by water power although this method is not always satisfactory."

Equipment for a modern laundry is comparatively inexpensive if purchased by several families on shares. The price of power washers ranges from \$25 to \$125, the higher priced machine having motor attachment.

There are a variety of ways in which housewives may coöperate in doing the housework, says Miss Brown. One person may do the bread making for the community, while another makes all the butter, just as the dressmaker does the sewing or the teacher does the teaching of the community.

LEARN TO FEED CALVES

LACK OF KNOWLEDGE MEANS HEAV LOSSES, SAYS EXPERT

Professor of Dairy Husbandry Explain Methods of Caring for Young Animals—Sanitation as Well as Proper Food is Necessary

Lack of knowledge of proper methods of feeding calves on the part of many farmers is the cause of heavy HOGS BRING BIG PROFIT losses, asserts O. E. Reed, professor of dairy husbandry in the Kansas State Agricultural college. The importance of knowing the best practices in feeding cannot be overestimated.

"The proper time for taking the calf from its mother depends upon the condition of the calf and its mother at the time of calving," says Professor Reed. "If the calf is strong it may be taken away immediately without being allowed to nurse. It is easier to teach the calf to drink from the pail if it is taken from the mother at this time.

"If the calf is weak at birth, or if the udder of the cow is inflamed or caked, it is a better practice to allow it to remain with its mother for several days. In case the calf is taken from its mother immediately it should receive her first milk. The milk at this time contains a high proportion of protein and ash, which act as a laxative and tonic and are effective in cleaning out the digestive tract and stimulating the digestive organs.

"In some cases it is not safe to feed a calf the milk from its mother after the first few days, as milk of the cows belonging to the high testing breeds is often too rich in fat for the young calf, and should be diluted with skim milk, or else milk from some other cow should be fed.

CALF'S APPETITE IS GUIDE

"The quantity of milk to feed the calf at this time is important. Under natural conditions the calf gets its milk often and in small quantities, and the more closely nature is imitated the greater the success.

"The calf of average size should receive about eight pounds of whole The amount gradually should be inmilk a day at first. Large calves should be fed more than this amount. The milk may be fed in two feedsnight and morning-or better results may be obtained by feeding three times a day. As the calf grows older the amount should be gradually increased. The best guide as to the amount which should be fed is the calf's appetite. It should be fed sufficiently, but never overfed, and it is a good practice to keep the calf a little hungry. The animal should take the last milk from the pail with the same relish that it takes

The time to change the calf from largely upon the development of A chilled pig may be revived by imthe calf, points out Professor Reed. mersing it up to the neck in water If it is strong and well developed, it heated to a temperature of 98 degrees. may be changed to skim milk at the It should be rubbed dry when removed end of the second week. This change from the water and should be induced should be made gradually by substi- to suck if possible. tuting a small quantity of skim milk for whole milk in the daily ration. A week or 10 days should be taken for the change. In this way the calf will "go off" the whole milk gradually and will not have a distaste for the skim a pair of pincers without hurting the

TEMPERATURE IS IMPORTANT

Care should always be taken to have the milk warm and sweet. Especially is this important in feeding the young calf. As the calf grows older cooler milk will do just as well if it is fed at the same temperature every day. The right temperature for the milk is blood heat-100 degrees. There is no way by which the digestive system of the young calf can be upset more easily than by feeding cold milk at one meal and warm milk the next.

If there is any doubt about the temperature, a thermometer should be used, according to Professor Reed. Judging the temperature of milk by putting the finger into it is not satisfactory, because milk will feel warmer the pigs grow older. If an extra pen on some days than on others. It is cannot be provided, the sow may be cause one feed of sour milk may upset are being fed. If possible they should the digestive system of the young calf be taught to nibble at sugar beets or for months, or may even cause death. mangels."

The calves should by all means be kept in clean, well lighted, and well ventilated stables. The pails from which the milk is fed should be kept as clean as possible. Clean, fresh water should be provided at all times. Many feeders assume that the calf does not need water on account of drinking milk but it will consume a large amount of water even after drinking 15 or 20 pounds of skim milk a day.

(Concluded from Page One)

"Tankage and meat meal are the best substitutes for milk. The danger is that too much tankage may be fed. One-fourth or one-third pounds of tankage fed daily to the hogs-individually—is a profitable way of feed-

"Shorts are one of the standard feeds and are available to every farmer in the state. In feeding, of course, the economy of feeding must always

be considered. "For western Kansas replace corn with mile or kafir. The grain sorghums will give almost as good results as corn. These grains represent 90 per cent of the corn value.

"The only difference in the development of purebred and market hogs is one of business. It takes more capital, time, and care to handle purebred stock than grades. It is better to start with the grades and learn how to breed, feed, and manage them profitably."

KEEP SOW IN CONDITION

The thrift and vigor of early pigs depend upon the quantity and quality of feed consumed by the brood sow and the sanitary conditions under which she is kept prior to farrowing and up to weaning time, according to Ray Gatewood, instructor in animal husbandry in the college.

"After farrowing the mother should not be disturbed for 24 hours except to give her an occasional drink of water. No dry feed need be given on this day. On the second day she should be given a very light feed. creased as the pigs grow. With a young sow the feed should be increased so as to get her on regular ration in two weeks.

"As soon as possible the pigs should be made to suck. They should have an early drink of their mother's milk if they are weak or if the pen is cold. If, however, they are strong, lively, and comfortable they may wait for their first drink until all are born. The attendant must use his own judg-

"An apparently lifeless pig can sometimes be revived if its mouth is opened and blown into. This step whole milk to skim milk will depend must be taken as soon as it is born.

CLIP TUSKS OFF EARLY

"The pigs should have their tusks clipped off before they are 24 hours old. This may be done by means of pig. These tusks are of no use and they cause much damage.

"Plenty of sunshine and exercise is essential, and as soon as possible the pigs should be pastured. Unless a little blood meal is fed, rye pasture tends to scour small pigs. They should be provided with a small trough where they may secure additional feed. The trough must be kept clean, otherwise it will become a

source of danger. "When the pigs are three weeks old and have learned to eat, it is well to give them access to another pen in 454.07 pounds. Other important items which a small trough is kept. Mid- in the test were: cost of 100 pounds dlings stirred into skim milk may then gain, \$6.83; cost of total feed per head, be fed to them. The quantity of middlings can be increased gradually as also important to feed milk sweet be- shut out of the pen in which the pigs

WINTER EXPERIMENTS ARE OF VAL-UE TO KANSAS STOCKMEN

Whole Kafir Makes Better Showing Than Shelled Corn-Other Interesting Points Brought Out in the Tests

Facts relative to the comparative value of feeds for sheep brought out by the second trial by the Kansas State Agricultural college in finishing western lambs on feeds adapted to Kansas conditions are expected to be of great value to sheep raisers of the

The purpose of the tests was to determine the relative value of shelled corn and threshed kafir, ground kafir heads and threshed kafir, and alfalfa and alfalfa plus silage.

Cottonseed meal was fed to each lot at the rate of 12 pounds per day. The following rations were fed: Lot 7shelled corn, cottonseed meal, alfalfa, and silage. Lot 8-whole kafir, cottonseed meal, alfalfa, and silage. Lot 9-ground kafir heads, cottonseed meal, alfalfa, and silage. Lot 10shelled corn, cottonseed meal, and

Silage was fed at night and alfalfa in the morning. The lambs were started on the grain ration at the rate of 14 pounds per day to 75 head and gradually increased to full feed. The same amount of grain was fed to each lot. The roughage varied slightly, depending upon the manner in which the lambs cleaned it up.

SHELLED CORN VS. KAFIR

Lots 7 and 8 were used to determine the comparative value of shelled corn and whole kafir as grain. The kafir lots made as good gains as the corn and were less expensive. The net profit from the kafir lot was 6 cents more per lamb than from the lot fed

Lots 8 and 9 were fed to determine the relative value of whole kafir and ground kafir heads as grain. The lambs fed ground kafir heads did not show the condition and finish of the whole kafir lot and were valued at 15 cents less per 100 pounds.

Lots 8 and 10 were fed to determine the value of alfalfa and silage as compared with alfalfa alone as a roughage. The lots fed alfalfa alone made a little better gain at a trifle greater cost and were valued at 5 cents more

A double-deck car of 310 lambs was bought on the Denver market November 4, 1915, at \$8.15 per hundredweight. The lambs were shipped to Manhattan and fed on corn and kafir fodder until November 26, when they were divided being taken to have the lots as uniform in weight and conformation as possible. The tests culminated February 14, and the results are now made public.

DETAILS OF EXPERIMENTS

follows: grain, 1.01 pounds; cottonseed meal, .16 pounds; alfalfa hay, .95 pounds; and silage, 1.24 pounds. The total cost of feed per head was \$1.50. The cost of 100 pounds gain was \$6.83. The initial hundredweight value was \$8.15, while the final hundredweight value was \$11.10.

In lot 7 the average initial weight was 58.58 pounds; the average final weight, 80.50 pounds; the total gain, 21.92 pounds; the average daily gain, .274 pounds; and dressing percentage. 56.6. The average daily ration was as follows: grain, 1.01 pounds; cottonseed meal, .16 pounds; alfalfa hay, .95 pounds; and silage, 1.24 pounds. Feed per 100 pounds gain follows: grain, 370.68; cottonseed meal, 58.39 pounds; alfalfa hay, 348.54 pounds; and silage, \$1.50; initial hundredweight value, \$8.15; final hundredweight value, \$11.10; total cost per lot, \$496.13; total lot receipts, \$626.04; total profit per lot, \$129.91; average profit per lamb,

weight, 80.82 pounds; the total gain, est in the sale.

BEST FEED FOR LAMBS 22.02 pounds; the average daily gain, .275 pounds; and dressing percentage, The average daily ration was as follows: grain, 1.01 pounds; cottonseed meal, .16 pounds; alfalfa hay, .95 pounds; silage, 1.26 pounds. Feed per 100 pounds gain follows: grain, 368.89 pounds; cottonseed meal 58.11 pounds; alfalfa hay, 346.85 pounds; and silage, 459.74 pounds. Other important items in the test were: cost of 100 pounds gain, \$6.44; cost of total feed per head, \$1.42; initial hundredweight value, \$8.15; final hundredweight value, \$11.10; total cost per lot, \$491,54; total lot receipts, \$626.04; total profit per lot, \$134.50; average profit per lamb, \$1.79.

In lot 9 the average initial weight was 57.77 pounds; the average final weight, 77.52 pounds; the total gain, 19.75 pounds; the average daily gain, .247 pounds; and dressing per cent, 55. The average daily ration was as follows: grain, 1.16 pounds; cottonseed meal, .16 pounds; alfalfa hay, .93 pounds; silage, 1.09 pounds. Feed per 100 pounds gain follows: grain, 471,64 pounds; cottonseed meal, 64.82 pounds; alfalfa hay, 377.11 pounds; silage, 444.63 pounds. Other important items in the test were: cost of 100 pounds gain, \$6.74; cost of total feed per head, \$1.33; initial hundredweight value, \$8.15; final hundredweight value, \$11; total cost per lot, \$478.61; total lot receipts, \$598.40; total profit per lot, \$119.79; average profit per lamb, \$1.60.

In Lot 10 the average initial weight was 58.50 pounds; the average final weight, 81.70 pounds; the total gain, 23.20 pounds; the average daily gain, .29 pounds; and dressing per cent, 56.5. The average daily ration was as follows: grain, 1.01 pounds; cottonseed meal, .16 pounds; alfalfa hay, 1.79. Feed per 100 pounds gain follows: grain, 350.23 pounds; cottonseed meal, 55.17 pounds; alfalfa hay, 618.39 pounds. Other important items in the test were: cost of 100 pounds gain, \$6.97; cost of total feed per head, \$1.62; initial hundredweight value, \$8.15; final hundredweight value, \$11.15; total cost per lot, \$504.56; total lot receipts, \$636.67; total profit per lot, \$132.11; average profit per lamb, \$1.76.

The price of grain was estimated at \$1 per 100 pounds, ground kafir heads at 72 cents, cottonseed meal at \$36 a ton, alfalfa roughage \$8 per ton, and silage \$3 a ton. Total cost per lot covers lambs, labor, feed, shrinkage freight, and commission. Total profit is based on the selling weights of lots on the market.

TURN WASTE INTO CASH

(Concluded from Page One)

into four lots of 75 head each, care the heifers and the calves they pro-

The average gain per head of the lot fed corn and cob meal and linseed being deceived and demanded protecmeal as well as silage, alfalfa, and tion of the legislature. It responded straw, was 225.3 pounds in 120 days as compared with but 110.4 pounds for lion law, the purpose of which is to The average daily ration for lot 7 the other lot. The average final weights were 671.5 and 556.1 pounds respectively.

The average daily gains in weight were 1.88 pounds and .92 pounds. The average costs per head for feed were \$11.43 and \$4.73.

The average daily ration per head in the lot where meal was added follows: alfalfa hay, 7.96 pounds; silage, 8.72 pounds; wheat straw, .56 pounds; corn and cob meal, 4.54 pounds; linseed meal, 1 pound. The ration in the second lot: alfalfa hay, 9.12 pounds; silage, 9.53 pounds; and wheat straw, .55 pounds.

Cost of the corn and cob meal was listed at 93 cents a hundredweight and that of the linseed meal at \$1.81.

NEW HONORS GO TO COLLEGE IN KANSAS CITY STOCK SALE

Cattle Bring Highest Price at Central Shorthorn Breeders' Event

New honors were accorded the Kansas State Agricultural college in the recent sale held in Kansas City by the Central Shorthorn Breeders' association. The offerings of the col-In lot 8 the average initial weight lege-four head-sold for \$2,115, or tition. It also protects the prospective was 58.8 pounds; the average final an average of \$528 a head, the high-

DON'T MIX HORSE TYPES

DECIDE ON DEFINITE IDEAL, URGES-DOCTOR McCAMPBELL

Value of Purebred Sires Must Be More Extensively Recognized if United States is to Occupy High Place in Breeding Industry

The fact that \$2,000,000 is paid annually in Kansas by mare owners in service fees emphasizes the importance of deciding upon a definite and correct. ideal to guide the breeder in his operations. Mixing types and breeds is a ruinous practice, declares Dr. C. W. McCampbell, secretary of the livestock registry board.

"The mare owner must learn to appreciate more fully the value of good, sound purebred sires," says Doctor McCampbell. "Why have we sent more than \$1,500,000 to Europe annually for breeding horses? The principal reason is that the European horse breeder learned a long time ago to appreciate the value of good, sound purebred sires for breeding purposes. In the horse breeding countries of Europe grade and scrub sires are a minus quantity. In Kansas 45 per cent of the sires used are grades and scrubs.

"The Kansas breeder must be more careful in selecting his brood mares. Too often the horse buyer gets the good young mares while the diseased, inferior, and hereditarily unsound mares are retained for breeding purposes. The best sires in the world can make little improvement with such foundation to work upon.

COLT MAKES GROWTH EARLY

"After selecting a correct and definite ideal toward which to work and deciding to use only sound purebred sires and retain the good mares for breeding purposes, one must not forget that the colt must be fed liberally. The colt makes considerably more than half his growth during the first 12 months of his life. Here is where the European horse producer has been wiser than we. The well fed colt not only makes a bigger horse but a smoother and more symmetrically built one.

"Mare owners as a whole have been careless and shortsighted in their service fee investments, yet they are not entirely to blame for the average quality of our horses. Many more owners have sought sires that combined good individuality with good breeding and have been deceived by representations. made by stallion owners in regard to the breeding of their stallions. Sometimes this deception was intentional, while sometimes it was not."

In 1909 more than 2,000 stallions that were advertised and represented to be purebreds were only grades and scrubs, states Doctor McCampbell. The mare owners began to realize that they were by passing what is known as the stalrequire stallion owners to advertise and represent their goods for just what they are. Under this law every stallion must have a state license and to secure a license stallion owners must submit pedigrees and statements of breeding to the state live stock registry board for inspection.

HOW STALLION LAW WORKS

After the breeding has been carefully checked up and the identity of the stallion has been established, he is licensed according to his breeding, under one of the following classes: purebred, crossbred, grade, scrub. This license must be posted in a conspicuous place where the stallion is kept for service. To assist mare owners further a color scheme is followed in issuing licenses. White licenses are issued for purebreds, pink for crossbreds, yellow for grades, and blue for scrubs. Thus the mare owner has a means of knowing just exactly the kind of a stallion he may patronize, and is protected in making his

service fee investment. The stallion owner is also protected. as the law compels honesty in compestallion purchaser from the unscrupulous grafting stallion peddler.

STRAWBERRY IS IN LEAD

HEADS LIST OF SMALL FRUITS BE-CAUSE OF ITS ADAPTABILITY

May Be Grown on Wide Variety of Soils and Under Many Climatic Conditions-Horticulturist Tells of **Methods of Planting**

The strawberry leads the list of small fruits in popularity because of its wide range of adaptation to soil and climatic conditions. The large number of varieties give a long season of the most delicious fruit. Its ease of culture and its early season of bearing makes it a desirable home and market crop.

"The strawberry is most productive in a sandy loam soil, but if this type of soil is not available it may be grown with good results in many of the heavier soils," says F. S. Merrill, of the horticultural department of the Kansas State Agricultural college. "The poorest results usually occur on the sandiest soils, for these dry out more severely in the late summer months and prevent the formation of new plants and runners and reduce the development of fruiting buds for the subsequent season.

FRESHLY BROKEN LAND IDEAL

"Freshly broken land is usually ideal for a strawberry bed provided it has first been planted to some cultivated crop, such as potatoes. Sod depend upon the annual pasture plants. land is likely to be infested with white the tender plants."

planting, states Mr. Merrill, but the for grain purposes. Stock may be two most commonly used are the hill turned in on the oats as soon as it is system and the matted row system. In 8 or 10 inches high. the hill system the plants are set 18 the plant is utilizes in the formation plant oats only. There is really nothof one stool. All the work done in ing gained by mixing. cultivation in this system must be done with hand implements but the returns are higher than in the matted row system. A modification of this system is sometimes practised by setting the rows 3 feet apart and the til fall." plants 18 inches apart in the row.

In the matted row system the rows are from 3 to 4 feet apart and the plants 12 to 18 inches apart in the row. New plants are permitted to develop until the row is 2 feet wide. With this system the work can be done mainly with horse drawn imple-

WESTERN KANSAS IS PLACE

J. C. Hopper Tells How Ideas of Animal **Production Have Changed**

Western Kansas is the best place in the world to produce registered cattle of the beef variety, in the opinion of J. C. Hopper of Ness City, Hereford cattle breeder and banker, expressed in a paper on "Breeding Purebred Cattle in Western Kansas." Mr. Hopper was scheduled as one of the speakers at the annual round-up but was unable to attend the meeting.

"There was a time," says Mr. Hopper, "when it was thought impossible to produce a purebred animal carrying with it quality unless it was raised in a barn. Barn-raised animals were the only cattle that received proper mating. Cattle were kept in a barn from the time they were calves until they were sold as herd headers. That theory was exploded long ago and western Kansas is coming into her own in cattle breeding.

"Our native grass gives plenty of growth and our alfalfa and kafir give the bone and scale. We have an ideal highway engineer. climate so that our prairie products may be shipped anywhere in the Union and make good. The cattle cover more muscle development. It has been well foot roadway.

stated by ranchmen that well bred and well developed animals from the prairies of western Kansas are of much more service in their herd than those raised entirely in barns and small pastures."

RAISE ANNUAL PASTURE CROPS AS SUPPLEMENT

This Plan Will Prevent Injury to Grazing Land-Is Useful to Small Farmer

The use of annual pasture crops as a supplement to native grass, or to provide pasture on the small farm, is receiving much attention from Kansas farmers. Knowledge of the varieties of annual crops best suited to the soil and climatic conditions of the state is considered important.

"Many owners of native grass pasture could supplement to advantage their grass with an annual forage crop during part of the grazing season,' says Ralph Kenney, instructor in farm crops in the Kansas State Agricultural college. "Such supplementary pasture, especially during the early part of the growing season, will prevent much injury to grazing land by avoiding too close grazing and by encouraging the production of seed.

"The small farmer who has no native grass pasture or who has not succeeded in establishing a permanent pasture of tame grasses is forced to

"The earliest annual pasture crop grubs which are a dangerous foe to that can be seeded in the spring is oats. A heavier seeding should be There are many different ways of made than when the crop is intended

"A mixture of oats with wheat, barinches apart and no runners are al- ley, or rye is preferred by some farmlowed to develop. The strength of ers whereas many others prefer to

"Sweet sorghum is seeded May 10 to May 25 at the rate of a bushel of seed per acre, and is ready for pasture by July 1. If not too heavily pastured, sorghum will remain good un-

PRINTS 100,000 COPIES OF POTTER'S ARTICLE

Federal Government Distributes Copies of Engineering Experiment Bill with Local Dean's Explanation

One hundred thousand copies of the United States senate bill for establishing engineering experiment stations in corn nearly always outyields the best FORAGE CROPS, NOT DRY state colleges, together with an expla-FOR PUREBRED BEEF CATTLE nation of the plan by A. A. Potter, dean of engineering in the Kansas State Agricultural college and secretary of the Land Grant College Engineering association, have been printed by the federal government and distributed. Professor Potter's explanation is entitled "Engineering Experiment Stations as Aids to Industrial Preparedness."

> Dean Potter spoke on the same subject before the second conference of a committee on engineering cooperation in Chicago and obtained promises of extensive coöperation from various engineering organizations.

GEARHART DRAWS PLANS FOR CLOUD AND KEARNY BRIDGES

Largest Structure Is to Be Over Arkansas River at Lakin

Contracts have been let for the construction of 12 reinforced concrete ment farm in Ford county last year. bridges in Cloud county at a cost of Four good and well known varieties of \$19,868 and a \$24,900 bridge over the Arkansas river at Lakin.

the office of W. S. Gearhart, state

Kearny county has expended \$20,000 in maintaining the old wooden bridge at Lakin, which will be replaced by the territory in feeding than in the east one of reinforced concrete. The new and this gives them firmness and bridge will be 560 feet long with an 18- out increased labor means a greater clover, and rape have most of these dress before the club on "The New

WATCH FOR OAK LEAVES

WHEN THEY START IT'S CORN PLANT. ING TIME

Period Usually Lasts About Three Weeks Says Crop Expert-Early Seeding Is Safer in Western Than in Eastern Kansas

When the ground becomes sufficiently warm to start the leaves on the deep rooted trees, like the oak, the walnut, and the osage orange, it is time to plant corn, according to C. C. Cunningham of the cooperative experiment work in the Kansas State Agricultural

"The time to plant corn varies with the season and the locality," says Mr. Cunningham. "The growing season in southern Kansas is from two to three weeks earlier than that in northern Kansas. In the western part of the state the altitude is a factor influencing the time of planting, in that the season is shortened as a result of the greater elevation.

GENERALLY APRIL AND MAY

"Under average conditions there is a period of about three weeks during which corn may be planted with equal chances of success, although sometimes, because of peculiar climatic conditions, very early or very late plantings are best. In the northern and the northeastern portions of the state, from May 1 to 20 is, on the average, the best time to plant corn, while in southern Kansas most of the corn is planted in the last three weeks of April."

The time required to mature the variety of corn grown is a factor to be considered, points out Mr. Cunningham. Early maturing varieties may be planted comparatively late with good results, while late maturing ones must necessarily obtain an early start in order to ripen properly. Since the top soil becomes warm earlier than the subsoil, the surface planted corn may be seeded earlier than the listed corn.

A wet soil warms up more slowly than a comparatively dry one. Corn consequently can be planted in the drier soils earlier than in the wet ones. For this reason, early planting is safer in western than in eastern Kansas because of the naturally drier condition of the soil in the western part of the

HOME GROWN SEED BEST

Well selected seed of home grown of imported seed by two to six bushels to the acre. Kansas farmers are consequently advised to plant this type of

"Four dangers are encountered when seed is imported from a distance,' says G. E. Thompson, specialist in crops, division of extension, Kansas State Agricultural college. "They are the probability that the imported seed will not be adapted to climatic conditions, the danger of importing some new or troublesome plant disease, the danger of bringing with the seed some injurious insect or weed pest, and the difficulty of getting a satisfactory settlement with the seedsman, at a distance of 500 or 1,000 miles in case he sends seed of inferior quality or of a variety not ordered."

TESTS ON WESTERN FARM

An excellent example of the first danger was shown on the state experieastern Kansas corn were planted in direct comparison with four good but The plans for these were prepared in less known varieties of western Kansas corn. The four western varieties outyielded the four eastern varieties an average of 16 bushels and 10 pounds per acre. The imported seed was not adapted to western Kansas conditions.

An increased yield from a field withprofit, and this increased yield can be qualities."

secured better and more surely by planting well selected seed of good home grown corn than by planting imported seed of unadapted and untried varieties.

"The best farmers of any locality are apt to be very nearly right in their farm practices," says Mr. Thompson. "It is easy to interest a farmer in a high yielding corn. It is next to impossible to interest him in a pure strain of corn if it does not outyield the strain he already has, and the farmer is justified in this attitude."

WANT MORE ENGINEERS THAN CAN BE SUPPLIED

Big Corporations Turn to College for Tech nical Graduates-Many Seniors Are Located

More requests than could be filled have come to the engineering division of the Kansas State Agricultural college for young men completing the engineering course this year. Among firms which have sent requests that had to be denied are the National Carbon company, the Nevada and California Power company, the Emerson Electric company, the Pacific Telephone and Telegraph company, and the Dempster Mill Manufacturing company.

Some of the engineering seniors who are located with large companies are James Hagan, H. D. Linscott, W. K. Herveys, T. R. Knowles, A. N. Johnson, F. R. Rawson, C. D. Sappin, J. P. Rathbun, and C. H. Zimmerman with the Westinghouse companies; A. M. Butches and J. G. Phinney with the Denver Gas and Electric company; W. E. Deal with the Western Electric company; B. M. Andrews, C. T. Halbert, A. E. Hopkins, George T. Usselman with the General Electric company at Schenectady, N. Y.; R. P. Baker and O. I. Markham with the General Electric company at Lynn, Mass.; Andrew Herold with the United States Light and Heat corporation at Niagara Falls, N. Y.; T. K. Vincent and L. A. Wilsey with the International Harvester company; I. I. Michaels with the American Blower company, Detroit; G. H. Sechrist with the Home Telephone company, Kansas City; and N. H. Davis and L. R. Parkerson with the Utah Gas and Electric Light company.

A number of the corporations which have taken men would like to employ additional ones if they were available.

Ray Gatewood Advocates Type of Feed that Will Produce Pork Cheaply Alfalfa, Rape, or Clover

"Spring pigs fed on good forage crops will make five times as much profit as those fed in dry lots," according to Ray A. Gatewood, instructor in animal husbandry in the Kansas State Agricultural college.

"The cost of 100 pounds of gain on young pigs with corn at 50 cents a bushel and such forage crops as alfalfa, rape, and clover, runs from \$2.88 to \$3.96; with older hogs from \$4.23 to \$5.31.

rape, \$37.50; alfalfa, \$65.90; and a

"Of all forage crops, alfalfa is the great permanent crop, while rape is the emergency crop, and green rye the fall and early spring crop. The ideal forage crop should show adaptability ford. to soil and climate, permanency, palatability, reasonable cost of planting, and good pasture at any time during the growing season. Alfalfa,

TEST SANDS OF KANSAS

ENGINEERS OBTAIN DATA NEVER HERETOFORE AVAILABLE

R. A. Seaton and I. I. Taylor Present Results of Investigations of Great Value in Modern Building Operations Throughout State

Tests of sand from all parts of Kansas have been made by the Kansas Engineering Experiment station and will be, it is expected, of great value to users of mortar and concrete in building operations. Results of the tests in detail are given in a bulletin -the first on the subject ever published in the state-by R. A. Seaton, professor of applied mechanics and machine design, and I. I. Taylor, instructor in applied mechanics in the agricultural college. The bulletin is illustrated with numerous charts and

More than 50 representative samples were tested, having been obtained from city engineers and other officials in various parts of the state. The tests covered sieve analysis, percentage of silt, weight per cubic foot, specific gravity, percentage of voids, and tensile tests of mortar.

"It is a generally recognized fact," say the authors of the bulletin, "that the quality of the sand used has considerable effect on the strength and impermeability of mortar and concrete. Tests have repeatedly shown that with some sands much more cement is required to make a concrete or mortar of a certain strength or of a given degree of water tightness than with other sands.

USE OF CONCRETE IS GROWING

"As cement is the most expensive ingredient of concrete, it will therefore not always be economical to use the cheapest sand which can be obtained. The necessity of testing sands proposed for use in concrete is now being generally recognized by concrete engineers.

"The present extensive and rapidly growing use of concrete throughout the state makes the subject of the quality of sands found in Kansas of great importance. The object of the tests has been to determine the value of representative samples of sand from various sections of the state for use in concrete and mortar, and, as far as possible, the factors affecting the value of these sands.

"It is recognized that the sand in any one bank or stream channel will vary considerably from time to time, and that for important structures tests should be made of the particular lots of sand used; yet it is believed that the results given in this bulletin will be of value in indicating approximately what may be expected of sand from any of the various sources from which samples were tested."

PRESIDENT WATERS CHOSEN TO KANSAS AUTHORS' CLUB

Writers' Organization at Annual Meeting Elects Several Local Members

Dr. Henry Jackson Waters, presi-"The accredited gain in pork to an dent of the college, was elected to acre of forage varies, depending upon membership in the Kansas Authors' the crop, the age of the hog, and the club at the annual meeting in Topeka. amount of grain fed. An acre of Doctor Waters is the author of "The sweet clover with corn at 50 cents and Essentials of Agriculture," which is hogs at \$5 a hundred netted \$42.07; having brilliant success as a school text, and of many articles on agriculcombination of oats, peas, and rape, tural and educational subjects, including an elaborate report to the government on the Philippine islands. Other Manhattan people elected to

the club were Prof. H. W. Davis, Mrs. C. A. Kimball, and Prof. N. A. Craw-

Prof. J. W. Searson was reëlected vice-president of the club, with general charge of work in the Fifth district. Mr. Searson gave an attractive ad-Equality of Authorship."

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Newspapers and other publications are in-vited to use the contents of the paper freely

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SATURDAY, APRIL 22, 1916

Some people wish they were born May flies, which, so it is said, spend their whole life dancing.

There have been enough sex problems under discussion of late, and it looks as though the Sussex were the last straw.

Wreckers of a church at Pittsburg destroyed a painting by Harold Bell Wright. But there's no such easy way of disposing of his books.

THE BETTER FARMING CONTEST

Advertisers have for years made successful use of contests. These have aroused interest that few other types of advertising have been able to do.

The contest organized not for advertising purposes but for creating an interest in better farming has the same results. Whether it is open to adults or children, it succeeds in interesting whole families in modern agricultural methods. It furnishes both the zest of competition and a tangible reward for superiority.

It is in recognition of these facts that agricultural colleges, bankers, business men, farm papers, and farmers themselves are encouraging the contest idea. It means greater production and greater prosperity for everybody.

STICK TO THE WEATHER BUREAU

A good deal of fun is poked at the Easy street. government weather bureau but it is Farm improvements are moving and of everyone engaged in transporting perishable products. It is worth past years. More actually new lumwhile to rely on its predictions rather than on any new and unauthentic systems of forecasting. The weather bureau's predictions are not always exactly fulfilled, but they do come true in the vast majority of cases.

Most intelligent people have lost their belief in Hicks's almanac but they are still ready to accept systems quite as unreliable. The latest professes to be able to forecast weather for a long time ahead by means of the rifts and spottedness of the sun and its shafts of solar radiation.

All scientific authorities agree that the weather can be predicted only for a short time in advance and everybody interested in the weather will do well to stick to the conclusions of the weather bureau, which are based on the most careful scientific investiga-

THE GROWTH OF GOOD ROADS

Inventions, discoveries, and public improvements take place, as a rule, only when there is an insistent demand for them. The history of good roads affords a striking example of this fact.

In early times, when each family lived largely to itself, there was little commerce in the articles produced on the farm and consequently little need for transportation. As large cities developed, the demand for roads on of endowment insurance or savings told and showed how to select materi- Marlatt, a collection of common birds. anyway?-Wichita Beacon.

which products might be easily transported grew.

Two of the most recent causes for the improvement of roads have been pleasure vehicles. Twenty-five years ago the bicycle began to come into common use and the cyclists made a vigorous demand for roads on which they might ride. In an article published more than a quarter of a century ago, J. S. C. Thompson, then superintendent of printing in the college, wrote:

"Cycle riding has of necessity been largely restricted to those who have the use of paved streets in the cities and middle states. But riders are multiplying yearly, and the west now or three years ago. This growing army finds many bad roads, many of them almost impassable for a part of the year to teams, and always so muddy, so rough, or so dusty that to wheel through them is impossible.

"The cry for good roads goes up from every wheelman in the country. While their motives may seem, at first glance, selfish, the object for which they labor is a most praiseworthy one, since all good citizens are interested in the improvement of our highways.'

Unfortunately, however, paths for bicycles were constructed in many places in lieu of improved roads. The invention of the automobile, however, has meant a real step toward better roads.

The improvements thus made have all been to the advantage of the farmer, but progress would have come much more rapidly had he always cooperated. It will come much more rapidly in the future if he will invariably cooperate from now on.

FARMERS AND LUMBER

A year ago a motor trip through parts of western Kansas showed a skylight being gouged, here and there, and most frequently, too, by collections of silos. It was the common thing to catch the farmer pushing a silo up into the atmosphere, making the country look like a fortified belligerent borderland.

But it is some different now. A trip through the same land shows the lumber and building material men to be doing the business, as they were a year ago, but in a different way. The farmers are buying new yellow lumber and are erecting new houses and barns, roofing their houses once more and adding a sleeping porch here and there. A glance over the agricultural landscape shows shiny new boards and shingles in every direction. In a slanting afternoon sun they stick out like a beacon light in a fog. And it is all because the farmers, in that section of the country, are living on

one of the best friends of the farmer along more, in this big section of the state, than they have moved in many ber is being sold on the farms in the counties west of here, than for a long time in the past. It is evidence that the farmer is to have more of the good things.

> Edwards and Pawnee counties are being thickly settled by large farm houses and the barns there, always large, are being built still larger. There are evidences, on every hand, of the fertility of the soil and of a farming community that knows how to

> Silo landscape is just as commanding to the eye, in all of this big country, but the silos have the added luster of the pine board, paintless in the roofs, and newly touched by the artist with the brush in other parts of the structure. And it is a sight worth seeing.

> For an early spring vacation, by motor, for a day or two or three, drive west in Kansas and see more evidences of improvements in farm homes and conveniences than any past year has shown.-Hutchinson News.

SAVING ON THE FARM

Systematic saving by farmers is not so generally practiced as among salaried workers in the city. The farmer has not been given to saving by means very interesting and practical. They in a boxing attitude; by Mr. F. A.

banks, though he has been a strong supporter of building and loan associations in many instances. The principal difficulty has been that his income has not been so regular as the weekly pay check of the city worker and it has not been so easy to put aside a small sum regularly. The well balanced farm now has a more steady income. The milk check on a dairy farm is almost as regular as the pay envelope in the factory, and has done much to systematize saving on many farms.

The man who needs to practice this and turnpikes in some of the eastern form of thrift most effectively is the young farm hand who is saving against the day when he will become a tenant has hundreds where one was found two and later when he will buy his own farm. If as his regular monthly pay is received he sets aside \$10 to \$15 in a

als for clothes, make a hospital bed, cook meat, clean and renovate clothes, alter patterns, make bread, cook vegetables, decorate the home, cook for the sick, and many other things. One of the prettiest and most interesting demonstrations was that of setting the table and serving the meal.

All the women who attended the school felt amply repaid for their time on the part of the women who lived in the country to attend every session.-Sedgwick Pantagraph.

A QUARTER CENTURY AGO Items from The Industrialist of April 25, 1891

A special class of eight in veterinary science meets twice a week.

A knapsack sprayer is a recent valu-

Solving a Rural Problem

The Nation

OR so deep a social disturbance as the steady forsaking of country life by those who can escape it, remedies that go deep are obviously necessary. And they will have to be felt by the masses rather than presented by the rural "uplifters." Causes both economic and social must get powerfully in operation before we shall see the beginnings of the desired effect. The argument from material well-being seems already to be slowly making headway. Historically, the flight from the country to the city was at first a part of the industrial revolution of the last century. The great factories, the more numerous jobs, were in urban communities, and farm workers, with those whose houseindustries had been destroyed by machinery and specialization, went to the towns to find work. It may be that a reaction will set in, also for economic reasons. The struggle for existence may drive people back to the land. With farming made easier and more scientific and profitable, the terrible pressure in cities may soon begin to extrude to country districts many who must seek a new environment and opportunity if they are to maintain themselves above want or beggary. Until some such solid advantages, or social necessities, can be made the rural set-off to the artificial charm of the city, it will be in vain to hope for a repopulation of deserted hillsides. To reinforce the economic argument by every appeal on the score of health and sentiment is, of course, an obvious duty. Nothing that can be done to improve country schools, or to promote human intercourse among scattered farmers, should be omitted. And it might well be hoped that a change of mental attitude could be brought about so that men and women would again associate their happiest experiences with country sights and sounds, and have such remembered thrills of pleasure as stirred De Quincey when he recalled his joy, as a child, at the blossoming of the crocuses in his father's garden.

have capital for the purchase of a horticultural department. modest equipment with which to start on a rented farm. Another five years the World's fair committee at Topeka of regular saving will place him in as delegate from the Manhattan hortiposition to make a first payment on a cultural society. small place of his own.

The ambitious young man is likely to regard this period as discouragingly long, and small amounts regularly put aside as trifling, but this rate of progress is even more rapid than actually occurs in most instances.

Someone has well said that it takes a young man 10 years to get ready to farm, another 10 years to learn to operate his farm properly, and 10 of the college is greatly improved by years more to learn how to be the best farm citizen. By that time the average allotted span of life has expired. He who develops the habit of thrift early lengthens the period of indehas established himself.-Country Gentleman.

TEACHING HOME MAKING

Last week about twenty women of Sedgwick and community, pulled down the blinds, let their husbands eat canned beans and the house work go undone, while they came to the cooking and sewing school brought here by the members of the Home Makers' club.

Miss Broughten and Miss Fortney from the Kansas State Agricultural college conducted the school. Its aim hand training. was to show the women that home making is a broader work than cooking museum by Mr. Baker of WaKeeney, and sewing. The lectures given by the a wildcat and a badger; by Mr. Sut- generally, is educated beyond his inladies were demonstrated and were ter of Russell, a pair of fox squirrels telligence."

savings fund, in five years he will able addition to the apparatus of the

Mr. Mason attended the meeting of

The college lawns have made a rapid growth during the last two weeks, and are now attractive in their new coat of emerald green.

President Fairchild, as has always been his custom, often gives good counsel to students in his daily talks at the morning chapel exercises.

The drive near the southeast corner a curbstone guarding the corner to prevent teams from turning across the

Professor White has bought a lot and a half immediately west of Propendence which he may expect after he fessor Lantz's residence on Houston street, and will proceed at once to build a house thereon.

Regent Finley represented the board of regents, Regent Wheeler the board of agriculture, and Regent Caraway the county of Barton in the Columbian exposition convention.

Regents Finley and Wheeler held a committee meeting with President Fairchild in Topeka and adopted a plan for immediate equipment of the new iron shop upon a thorough basis of

Donations have been made to the

SHAKESPEARE

Matthew Arnold Others abide our question. Thou art

free. We ask and ask: Thou smilest and

art still, Out-topping knowledge. For the loftiest hill

That to the stars uncrowns his maj-

and money. And it was a big effort Planting his steadfast footsteps in the

Making the heaven of heavens his dwelling-place, Spares but the cloudy border of his

base To the foiled searching of mortality: And thou, who didst the stars and

sunbeams know, Self-schooled, self-scanned, self-honored, self-secure,

Didst tread on earth unguessed at. Better so!

All pains the immortal spirit must

All weakness that impairs, all griefs that bow,

Find their sole voice in that victorious brow.

SUMFLOWERS

People who weigh over 180 pounds should not try to be cute. It may result in murder.

We sometimes wonder just what place the motor cyclist will assume in the pages of history.

Every once in awhile you run across a very sensible girl who imagines that she ought to have gone on the stage.

Musical comedy producers in Chicago and New York will please note that we have 6,400 chickens on our poultry farm.

It is authoritatively estimated that there are 30,000,000 people in the United States who expect to write a short story some day.

A suspected class of people is a necessary adjunct to a selfrighteous community. If you would feel real virtuous, suspect somebody.

An advertising expert proposes to advertise war off the face of the earth. Yes, but that would give advertising such a boost that we'd all feel like going to war to get rid of advertising.

Sometimes it is very hard for a married man to understand whether the sight of a pretty girl makes him forget that he is married or whether it makes him remember it with considerable force.

ALL ALIKE

We used to sing of fair Lucile, Her vanity to please:

But we'd as soon make verse to Jane Or Mae or Eloise.

They're just as fair, they're just as

They have the same appeal; They chew their gum with jaws as fleet, They dress as does Lucile.

A DEFINITION OF "HIGHBROW"

'Most everybody uses the word 'highbrow'' once in a while, thinking so to imply that he or she wouldn't want to be one, yet hoping secretly that his hearers believe him to be the real thing. Hardly anybody, however, could tell exactly what it is to be a highbrow.

When Prof. Brander Matthews of Columbia university, who is supposed to know as much as any man in America, tried to define "highbrow" the other day, he took a thousand words to do it. Two or three of the sentences run:

"A highbrow is a person who has a habitual attitude of contempt toward that which is popular. He has not been educated enough to know that in all the arts the really good things, the vital things, have always been popular. Of course that does not mean that all popular things are good or vital. The highbrow is a person who,

Now-who wants to be a highbrow,

D. W. Ziegler, '13, whose home is at Wilkinsburg, Pa., expects to teach in Kansas next year.

E. A. Ostlund, '12, of Clyde has written to the horticultural department concerning spraying.

Mr. and Mrs. Percy Lill, '07, are selling their herd of Jersey cattle at their home near Mt. Hope.

Hachiro Yuasa, '15, has been appointed to a scholarship in entomology in the University of Illinois.

Miss Laura Falkenrich, '15, superintendent of the St. George schools, visited in Manhattan recently.

J. W. Hartley, '92, recently returned from a trip through Florida. He says Kansas is good enough for him.

J. M. Palmer, '13, has moved from Kansas City to Norfolk, Nebr., where his address is 803 Phillip avenue.

Henry Zimmerman, '12, is in the engineering department of the Babcock and Wilcox company, Barberton,

W. E. Stanley, '12, writes that he is getting along well at Purdue University, where he is instructor in civil engineering.

F. L. Williams, and Mrs. Kate Manly Williams, '99, are now located at Boise, Ida., where Mr. Williams is engaged in extension work.

F. J. Smith, '95, writes to the horticultural department from Mena, Ark., concerning spraying. He says there are good prospects for fruit in the region in which he lives.

M. D. Snodgrass, '06, and Mrs. Margaret (Minis) Snodgrass, '01, are on Kodiak island, Alaska, where Mr. Snodgrass is in charge of a station for hay and cattle experiments.

A. A. Werner, '07, of Etiwanda, Cal., writes that all is well with him and his family and that his six months old daughter, Eleanor, is the latest addition to the college colony in their

C. J. Doryland, '08, is the author of an article entitled "Preliminary Report on Synthetic Media," published in the Journal of Bacteriology, the official organ of the Society of American Bacteriologists.

The advisory council and board of directors of the Alumni association were in session Monday. They are making final plans for the commencement session of the association and for the alumni dinner.

J. G. Haney, '99, is now connected with the International harvester company, being in the extension department. His bulletins on "Sweet Clover Adapted to the Northwest" and "The Pit Silo" have just been received.

L. C. Criner, '92, of McPherson, was called to Manhattan recently on account of the illness of his daughter, Miss Fava Criner. She was injured in an automobile accident, but was able to accompany her father home.

Mrs. Inez (Wheeler) Westgate writes from Honolulu that she is about halfway through an apiculture course in the territorial college of agriculture. Mr. Westgate is in experimental work for the government at Honolulu.

E. H. Kellogg, '11, is one of the authors of a research bulletin on soils, published by the experiment station at Ames, Iowa. The work discussed in the bulletin was done when Mr. Kellogg was connected with the Iowa State college.

The civil engineering department is in receipt of a letter from E. L. Hageman, '11, who is engaged in the construction of macadam roads and concrete bridges at Bryson City, N. C. He writes that he expects to visit Manhattan in June.

M. M. Hutchinson, '13, and M. E. Hartzler, '14, visited in Manhattan over Saturday and Sunday. Both of these men are civil engineering graduates of the college and are at present international commerce commission.

J. D. McCallum, '14, is doing highly from.-Worcester (Mass.) Gazette.

successful work as instructor in manual training and agriculture in the Lawrence high school. He has all the boys interested. Mr. McCallum plans to take graduate work in landscape gardening in Harvard university next

Miss Margaret Justin, '09, is meeting with success as extension lecturer for the Michigan Agricultural college. She finds the farm women much interested, a number of them walking eight miles a day through the Michigan slush and snow to attend the traveling school.

The Kansas Academy of Science has just published a paper written by Dr. J. T. Willard, '83, and read before the Academy January 15. It is entitled "Some Nutritional Characteristics of Corn." The scientific character of the bulletin and its interest to the people of the state make it a real contribution.

Harry Colwell, who was for several years a student in the college, writes from Hastings-on-Hudson, N. Y., that he is enjoying his work immensely. He is teaching in the New York orphans' home. While in college he was prominent in the Webster Literary society, and since leaving has been very successful in education.

Frank T. Parks, '10, a member of the first class of civil engineers to graduate from the college, is now employed by the United States Reclamation Service on the Milk River Project at Malta, Mont. Mr. Parks was a very successful student, but will probably be best remembered by his associates by his ability as a left

A group of members of the class of 1905 have prepared a class letter with photographs of themselves and their children. Among them are Mrs. Josephine (Edwards) Leidigh, College Station, Tex.; Mrs. Jessie (Sweet) Arnold, Chicago: Mrs. Olive (Dunlap) Adamson, Schenectady, N. Y.; Mrs. Helen (Bottomly) Lill, Mt. Hope, Kan. and Mrs. Inez (Wheeler) Westgate, Honolulu, Hawaii.

BIRTHS

Born, to Dr. and Mrs. J. B. Gingery, '10, at Manhattan, on March 17, a daughter, Madge Willodine.

Born, to A. G. Kittell, '09, and Mrs. Marie (Fenton) Kittell, '09, Omaha, Nebr., on April 14, a daughter, Mar-

Born, to the Rev. William M. Orr, 10, and Mrs. Eula (McDonald) Orr, 13, at Isabella, Porto Rico, a son, William Robert.

MARRIAGES

SJOGREN-GILKISON

Miss Olga Augusta Sjogren and Mr. Charles A. Gilkison, '06, were married at Larned April 12. They will be at home on a farm near Larned after May 1.

DEATHS

REX LYNCH

Rex Lynch, son of James Hal Lynch, a student here in the late seventies, died at St. Louis Monday, April 17. His sister, Miss Rhea Lynch, is a member of the senior class. Mr. Lynch was graduated from the Kansas City Veterinary college.

OUEAR WILL ASSIST DOCTOR WATERS IN RESEARCH WORK

Indiana Man Is Added to Staff of State Agricultural College

Charles L. Quear has arrived in Manhattan to take up his duties as research assistant to Dr. Henry Jackson Waters, president of the agricultural college.

Mr. Quear is a former student of Purdue university, and has been engaged in teaching in normal schools and in supervising agricultural work in high schools.

A Boston newspaperman yesterday told prison inmates at Charlestown how a newspaper is made. He certainly employed on valuation work with the had some raw material right at hand to illustrate where the news comes

EUROPE WILL WANT SUPERIOR STOCK WHEN WAR ENDS

America Can Reap Permanent Reward Only by Producing Animals Better Than Any Left in France and Belgium

America will reap large permanent rewards in the horse business at the end of the war only if she produces superior animals, according to Edward N. Wentworth, professor of animal breeding in the Kansas State Agricultural college.

Horse breeders in general, Mr. Wentworth points out, look to the present war as a means of establishing the horse breeding industry of the United States on a par with that of Europe. They observe that the price of horses has risen significantly during the period of each great war in the last two decades and has never dropped back to its former level following the conclusion of peace.

Moreover, they figure, the principal theater of the war on the western front has been in the heart of Europe's draft breeding district and the blow has been so tremendous that not only will it be years before Europe can produce her own draft breeding stock but she will be forced to call upon America to supply a part of the stock, whenever peace is declared. The interval while the European breeding industry is at a standstill will permit the American breeder to catch up with European competitors.

HORSE VALUES WILL RISE

"The soundness of this reasoning is questionable," comments Professor Wentworth. "It is probable that horse values will rise higher than ever before but whether that will necessarily mean better horses is not the question. It is only because America may produce better horses that she may reap any permanent reward from her present advantages. If the horses which America exports to Europe following the war are inferior to the remnants of the breeds formerly there, European horsemen will use their own animals for breeding and the American horses for work stock. Then it will only be a few years until we are again dependent upon France and Belgium for the best of our draft stock.

"The reason America has little chance for producing superior animals during this period of European stagnancy is that the leading draft horse associations have made a part of their propaganda, 'the purebred mare on every farm.' This has so scattered the seed stock of the breed that many of the best mares are located in communities far from high class stallions and their colts are so poorly developed by farmers who are not specialized horsemen that the advantages of their high class breeding are lost.

EFFORTS NOT CONCENTRATED

"Furthermore, many of the best stallions imported have been taken to communities where grade mares alone are kept and while they have wrought untold benefits on the local stock yet from the standpoint of producing high class brood mares or stallions their blood has been wasted.

"It is because American efforts in at one time a student here, but was draft breeding have not been concentrated that she will have difficulty in meeting the situations which will develop when peace is concluded. The bulk of American horsemen in the past have been traders and not breeders. Their vision has not been that of men who would make American horse breeding independent of the rest of the world, but rather of vendors who seek to create further market for their wares. The best proof of this lies in the fact that with only one or two exceptions there is not an American bred draft stallion that is renowned the country over as a sire."

BAGHDIGIAN IN FIRST PLACE IN INDUSTRIALIST CONTEST

Gets Most Copy into College Organ-Brink and Boyer Next

B. K. Baghdigian won the first prize ing the largest amount of copy found future articles."

WILL NEED GOOD HORSES suitable for use in The Industrialist in the winter term. W. T. Brink won second prize, and A. W. Boyer third. Honorable mention was given to Miss Dora Otto, L. C. Moser, Ralph May, Miss Nelle Beaubien, and Floyd Haw-

> Magazine subscriptions and books given by Professors N. A. Crawford and F. L. Snow of the journalism department were the prizes. The contest aroused much interest, and a large number of students were in active competition for the awards.

HARRIS WOULD HAVE GEESE ON EVERY FARM IN KANSAS

They're Most Economical to Raise of All Barnyard Fowls, Says Expert

A few geese should be kept on every Kansas farm. They are grazers and for that reason are the most economically raised of all barnyard fowls, according to N. L. Harris, superintendent of the poultry farm at the Kansas State Agricultural college. A flock of geese will live during the summer on blue grass or clover pasture and will go through the winter on rye or wheat pasture except in snowy weather, when a small amount of ground grain should be furnished.

"I would not advise going into the goose business on a large scale in Kansas, because there is no close market, but for home consumption and feathers there should be a few geese on every farm," says Mr. Harris. "They are not at all profitable for eggs because a goose will lay only 30 or 40 eggs a season."

The hen goose makes a poor mother, points out Mr. Harris. It is better to set the eggs under chicken hens. Until two weeks old the goslings are somewhat delicate, but subsequently they are hardy. They have to be kept out of heavy dews and rain, however, until they are nearly 12 weeks old, for during this period "a wet goose is a dead goose."

whole grain. Under no circumstances, he says, should it be fed unless soaked for at least 24 hours. The natural food for geese consists of grass, tender roots, and worms.

"Perhaps the Toulouse and Emden should be the most extensively raised, as they are the so-called dry land varieties and require only sufficient water for drinking purposes, which makes them entirely suitable to Kansas conditions," says Mr. Harris.

ETHERTON'S HOUSE PLANS AROUSE GREAT INTEREST

Professor of Rural Architecture Gets Many Letters About Farm Homes

W. A. Etherton, professor of rural architecture in the Kansas State Agricultural college, is arousing much interest through his house plans for farm homes, and is receiving numerous let- There's an Opportunity to Sell It in Kansas ters on the subject. Several of the plans were detailed in THE INDUS-TRIALIST. Miss Helen G. Chapman writes to him from South Manchester,

"Thank you for sending me the reprints of your very interesting bungalows. They seem wonderfully suited to Kansas conditions and it is a real satisfaction to know that at last attention is being paid to beauty of line and proportion so that, not so far in the future, we may do away with the hideous mistakes made in the majority of farm homes.

"Have you anything suited to conditions here in the Connecticut valley? I had hoped to get hold of a simple, one-family house plan, suited to this locality, which would combine simplicity, beauty, and utility at the least possible cost (or better still, two or three such plans) to place on our church literature table, just at this season of spring building. If we could get two or three such houses, or even one, it would set a new standard and affect the building of such homes in the future.

"I would very much like 25 copies of each of the reprints sent me, and please offered to the journalism student writ- put my name on your mailing list for

POISON KILLS CUTWORMS

SPECIAL BRAN MASH WILL DESTROY INJURIOUS CATERPILLAR

Pests Are Larvae of Several Species of Moths-Will Eat Alfalfa, Clover, and Other Green Plants-How to Mix Remedy

Use of a poisonous bran mash as the most effective means of controlling the cutworm, which destroys small plants by gnawing into the stems and cutting them off at the surface of the ground, is advocated by George A. Dean, professor of entomology in the Kansas State Agricultural college.

"The caterpillars commonly known us cutworms," says Professor Dean, 'are the larvæ of several species of moths which are similar in general appearance and habits. They work at night and at the approach of day hide under the clods or bury themselves just beneath the surface of the soil.

"These worms are fleshy, soft-bodied caterpillars, varying in color from a dull grey to a dark brown, many times marked with blotches, stripes, and dashes. When found in the soil or thrown out, they are curled in a closed spiral.

"While some species attack certain crops more commonly than others, most of them feed on anything green and succulent, such as young corn plants, clover, alfalfa, garden plants, and many kinds of flowers.

WORMS FOND OF LEMONS

"An effective means of control is the use of a bran mash, composed of the following ingredients: bran, 20 pounds; Paris green, 1 pound; sirup, 2 quarts; oranges or lemons, 3; water, 3½ gallons.

"In preparing the bran mash, mix the dry bran and Paris green thoroughly in a wash tub. Squeeze the juice of the oranges or lemons into the water and chop the remaining pulp and peel into fine bits, and add them Mr. Harris advises against feeding to the water. Dissolve the sirup in the water and wet the bran and poison with the mixture, stirring at the same time so as to dampen the mash thoroughly.

> "The bait when flavored with the lemons not only is more attractive but is more appetizing and thus is eaten by more of the worms. The damp mash should be sown broadcast in the infested areas in the evening. If the worms are moving into an adjoining field, a strip of the bran mash should be sown broadcast along the edge of the field into which they are moving. The worms do not eat the poisoned mash so readily when it is dry, and for this reason it should be scattered in the evening, for the worms work mostly at night."

PURE SORGHUM SEED OFFERS CHANCE FOR MAKING MONEY

Communities

Grow pure sorghum seed and reap good profits! That there is an opportunity in Kansas communities for farmers to make money through the production and sale of first class seed is the opinion of G. E. Thompson, crop specialist, division of extension, Kansas State Agricultural college.

"Kansas farmers have been selling mixed sorghum grain at 40 cents a bushel and paying \$1.60 a bushel for pure seed," says Mr. Thompson. "The high price given for the pure seed will more than pay for the extra labor required in its production.

"There is money in the pure sorghum seed business for a person who will do the work carefully and correctly. Farmers who wish to take up this kind of work should plant their sorghum seed this spring with the view of keeping it pure and receiving the extra price for the grain."

The fundamental purpose of the agricultural agent and the farm bureau movement is to help make farming more profitable, life on the farm more enjoyable, and the country communities better places in which to live. Your coöperation is the keynote to the realization of the purposes of this movement.-Jewell County Farm Bureau News.

LIGHTNING RODS PROTECT WHEN PROPERLY INSTALLED

STATISTICS SHOW VALUE OF ARRESTERS IN PREVENTING FIRES-PROFESSOR OF ELECTRICAL ENGINEERING TELLS OF EFFEC-TIVE MATERIALS AND CONSTRUCTION FOR FARM USE

properly installed, are a real protec- Our average insurance for the time tion, according to Clarence E. Reid, given was \$3,992,000. A 2-mill assessprofessor of electrical engineering in ment on this amount is \$7,984, which the Kansas State Agricultural college.

Professor Reid points out that the a balance over of \$832." rod business got into disrepute in early days because manufacturers of lightning arresters knew little about the insurance man's standpoint," says electricity and because many swindles were worked on farmers in connection with the business.

"The farmer," he declares, "felt that his only safety lay in a shotgun



C. E. REID

and a bulldog when lightning rod agents were in his neighborhood."

Under modern conditions, however, rods have proved successful. In Iowa, he states, 55 insurance companies reported for eight years, 1905 to 1912, that about 50 per cent of the buildings insured by them had rods. In the eight years, all these companies paid only \$4,464 lightning claims on rodded buildings, an average of \$10.15 per company per year. On unrodded buildings, they paid lightning claims amounting to \$341,000, an average of \$775 per company per year. By comparing \$10.15 with \$775, it is seen that for every \$1 paid on rodded buildings, \$76 was paid on unrodded ones, or that the rods save \$75 out of an expected loss of \$76 if the buildings were not rodded. This shows an efficiency of 98.7 per cent, and as these rods were not subject to inspection, Mr. Reid comments, it is probable that some improper rodding is in-

SAVE 30 OUT OF 31

Professor Reid has similar figures from other states. Reports from state Fire marshals in Illinois, Indiana, Iowa, Minnesota, and Wisconsin, show that out of a total of 3,499 lightning fires, only 39 of the buildings were equipped with lightning rods. This is only 1 per cent of the total strokes, while 31 per cent of the buildings in these states were rodded; that is, the rods saved 30 out of every 31 rodded buildings.

There are nevertheless, says Mr. Reid, those with an honest difference of opinion as to the desirability of lightning rods. Some may have heard or known of cases where rodded buildings were struck, and they are not able to think of the many cases where rods must have protected buildings. Others do not think it pays to rod buildings. The secretary of one large company in Iowa says:

"From January 1, 1904, to August 28, 1914, we have had 28 dwellings, 44 barns, 13 cribs, five churches, and one hall struck by lightning. Of these, 11 barns were burned, with a total loss of \$5,600. None of the other buildings were destroyed, but the remaining 80 were damaged to the extent of \$1,552_ cost an average of \$30 to rod these correct and reliable, and that no one

Lightning rods of good material, if | 255 buildings, or a total of \$7,650. would have paid the losses and leave

IS INSURANCE SUFFICIENT?

"This man evidently thinks from Mr. Reid, "that it does not pay to rod buildings, but are you willing to have your buildings struck and burned even if you are able to collect the insurance money, and are you usually able to collect enough insurance money to repay you fully in every sense for even your financial loss?

"Whether or not to install lightning conductors on your property is after all a question of individual judgment. If the property is insured against loss by lightning there is not so much incentive toward the additional expense of lightning rods."

For those who are interested in protection against lightning, Professor Reid gives careful data on materials and installation.

A federal government bulletin, he points out, recommends No. 3 or No. 4 double-galvanized-iron telegraph wire, galvanized iron staples, wire connecting tees, and aluminum paint. Though iron is not so good a conductor as copper, it is thought to be less likely to cause dangerous side flashes, also to dissipate more readily the energy of the lightning flash.

RIGHT SIZE FOR RODS

Another bulletin, published in Ontario but based largely on data secured in the United States, holds that rods of any metal will give good protection as long as they are in good repair and properly installed, and that the relative value depends upon their respective durability. Copper rods should not be smaller than three ounces to the foot: if buildings are more than 60 feet high the National Board of Fire underwriters recommends not less than six ounces to the foot. Aluminum, if used, should be somewhat larger than copper, but if necessary. A simple, cheap, and should weigh about the same per foot. effective way to make a ground con-Copper, if used, is recommended in the form of cable or tape, on account of its flexibility and strength. If cable is used, no single wire should be smaller than No. 12 B. and S. gauge, and tape should be at least three-thirinch wide.

objection to the cable form is that moisture is held between the strands, and rusting takes place more seriousand bends around corners more readlike a broom, giving additional points for the collection and dissipation of the charge.

It might be well, Mr. Reid holds, to consider a combination of the solid rod for the main conductor, with cable for vertical terminal rods. These should be inspected at least once a year and replaced if in bad condition. Copper-washed wire should not be used, and a wire composed of a steel center with a surrounding sheath of copper has been found to be less durable than if made of iron alone. When iron is used, it must be double galvanized and kept painted, preferably with an aluminum paint.

IT'S NO COMPLEX JOB

"The installation," says Professor Reid, "is a very important part of lightning rod protection, but involves no more complex or secret operations than building a fence or digging a persons owning these 91 buildings had rod agent who insists that his system should be used on the ridge and other ment it. A cow will respond readily, time. Capons are extremely clumsy 255 buildings insured. It would have is the only one that is scientifically prominences.

but an expert, at a high price, should near wire fences, and under trees. be allowed to instal it, invites suspi- Fences should be grounded at least cion either of his honesty or of his knowledge.

"The all-important thing is to have projecting above the fence, and staa continuous conductor from the high- pled on the posts in contact with all est points on the building to moist the wires of the fence. Yard fences earth beneath. There must be no should be grounded at each corner, loose points or joints filled with rust, or broken joints or sections out because ing. of rust or careless handling. A rod broken from any reason ceases to be a conductor and becomes an accumulator and a source of danger, rather than a protection. Two iron wires twisted together may make a good electrical joint for awhile, but rust will soon collect and separate the two wires from good contact. Tees should be used for connecting iron or aluminum wires, and copper wires should be well soldered, a flux without acid being used. A horizontal rod should run along the entire ridge of the roof, around, not over, chimneys or cupolas, and a vertical terminal ending in a sharp point should be erected every 18 or 20 feet along the ridge, and should be at least 20 inches high above the ridge. Each chimney, cupola, gable, or other point projecting above the roof line should have a riser projecting above its highest

A MISTAKE TO USE GLASS

"A good approximate rule is that the distance between uprights should not be greater than twice their combined height. Uprights two feet high could be eight feet apart. All agree that the more vertical rods there are the better the protection, to the above limit. They should be placed not further than five feet from end of ridge, better closer, and should also be placed on dormers or silos attached to the barn. All conductors should be attached directly to the building by staples, nails, clips or other metal attachments, and in no case should glass or porcelain insulators be used The use of these was one of the early mistakes.

SEE GROUND RODS IN

"The ground connection is probably the most important feature of the entire installation and here the owner should trust no one, but see the ground rods installed in his presence. They should be deep enough in the earth to reach permanent moisture, in most cases seven or eight feet, but farther nection is to take a 10 foot piece of one-half inch iron rod, swedge the point to about three-quarters of an inch in diameter, and turn the other end of the rod into an eye for a hand hold. A hole large enough for a pail ty-seconds of an inch thick by half an of water is dug in the ground, and filled with water. The drill is placed The bulletin of the United States in the hole and gradually worked department recommends also a soft down, with the use of more water if iron cable about three-eighths of an required. When the drill is downfull inch in diameter, or an iron wire depth, it is withdrawn and the cable about a quarter inch in diameter. An carefully slipped into the hole. It should be protected by boards for six or eight feet above the ground.

"A rectangular building should ly. The cable is more easily handled, have one of these ground connections, with a ground rod up the side or ily, and the ends can be spread out corner on each side of the building for every 25 or 30 feet of its length. On an L-shaped or a T-shaped building, there should be at least three groundings, and on a U-shaped building. four or more, depending on the size. All the cables on one building should be connected into one system.

CONNECT GUTTERS WITH ROD

"Every roof gutter should have the top connected to the lightning rod, and the bottom to the ground rod, or cow gains in strength. to a ground rod of its own. All metallic eave troughs and conductor pipes should have the free ends connected to the rod, and conductor pipe should be grounded. All hay fork tracks, barn door tracks, and similar sequently the cow should be milked metallic bodies should be connected regularly. When her feverish condiwith the rod at both ends, or one end tion has left her after the third day, with the rod and the other with the ground.

"Metallic roofs should be grounded

"Cattle are often killed in fields is fed on a variety of feeds.

every 20 rods, by a No. 9 wire extending at least three feet into the ground, and at the first post from each build-

"Where there are only a few trees under which stock in the fields gather for shade, it will be feasible to rod

PROPER CARE PREVENTS DANGER TO COW OR CALF

Dr. F.S. Schoenleber Mentions Simple Pre cautions Which May Be Taken by Every Farmer

A few simple rules observed before and after birth will eliminate danger either to the cow or her offspring, according to Dr. F. S. Schoenleber, professor of veterinary medicine in the Kansas State Agricultural college.

"The feeding of some concentratescottonseed meal, linseed meal, or bran -a few weeks before the cow is due to freshen is helpful both to the mother and her offspring. Dry feeding probably has clogged the eliminative organs-the bowels, the skin, and the kidneys. To a great extent these concentrated feeds will correct this condition. Cottonseed meal should not tion similar to white diarrhea. be given to those cows that are exceptionally heavy milkers because it increases the flow of milk and might cause milk fever. It is a good plan to give to heavy milkers a medium to small dose of epsom salts-8 to 12 ounces dissolved in water-two to three days apart just before the cow is expected to freshen. This will help keep down the congestion."

During the gestation period a cow is feeding herself and another individual. She therefore needs a large amount of the best available food and water. Moldy feed, contaminated water, and insanitary surroundings tend towards a weak calf and cow. Often this is the starting point of contagious abortion.

Exposure to cold, rains, and strong winds have the effect of driving the blood of the animal from the surface to the internal organs, which frequently results in diseases of various kinds.

The cow should be isolated a few days before the calf is expected. This will prevent any possible injury or worry either to her or to her offspring. She should also be kept out of reach of hogs. At this period cows become cross and they should be handled carefully in order to prevent danger to strangers or owners.

If a cow does not clean properly within 10 to 12 hours, artificial means should be taken immediately because the prolongation of this condition is likely to injure the delicate organs and impair her as a breeding animal. If the membrane does not come with the calf or soon afterwards, the cow should be given at least one pound of epsom salts dissolved in lukewarm water. This is for a cow weighing 900 pounds. The dose must be increased according to the weight of the cow above 900 pounds.

Immediately after parturition a cow does not need heavy feeding. At this period she is feverish and her appetite is poor. She will, however, eat food when put before her despite the fact that her digestive system has no use for it. This feeding will help to create more fever. Plenty of cool water should be given her, and after 10 to 15 hours feeding is in order. Feed disposition." should be gradually increased as the

Calves should be protected from the weather and insanitary surroundings. The cow should be milked four to 10 hours after calving. This will allow the calf plenty of the first milk. Sub-

Grass is the natural food for the at two or four corners, depending on any other feed. Whenever grass is well, and any professional lightning size, but never from the peak. Points not available ensilage should supple-

CHICKS EAT TOO MUCH

THAT'S WHY INCUBATOR BIRDS DIE, BELIEVES EXPERT

They Can Be Raised Easily Enough if Fresh Air, Exercise, and Warmth Are Provided-Capon Industry Is Growing

Plenty of fresh air and exercise for the birds and good judgment on the part of the owner will do much to overcome the prejudice against the incubator chick, declares N. L. Harris, superintendent of the poultry plant in the Kansas State Agricultural college.

"The tendency to consume large quantities of food is probably the cause of the death of more incubator chicks than any other one cause. When first hatched, they possess ravenous appetites and a faculty for eating everything that is injurious. In the natural state they discover their food frequently but in small quantities."

Another cause of disappointment and disaster is a lack of sufficient warmth, points out Mr. Harris. The yolk of the egg, which is nature's method of supplying the newly hatched chick with nourishment, is absorbed slowly during the first few days of life. If for any reason the chick becomes chilled. this process of absorption is checked and the yolk sours, causing a condi-

PROVIDE FRESH AIR RUN

"There is little if any danger of keeping the temperature too high under the hover of a properly constructed brooder where there is an opportunity for the chicks to get away from the heat and choose a temperature in keeping with their comfort," says Mr. Harris. "Where the fresh air run is not provided, the danger of overheating is probably as great as that of alowing the chick to become chilled.

"Few if any brooders are sufficiently ventilated, and because of the rapid respiration of chicks fresh air in large quantities is imperative for their proper development. After the first few weeks very little heat is required except on damp, rainy days. It does no harm for them to get wet provided they have access to a warm compartment where they can quickly dry."

INCREASED MARKET FOR CAPONS

The capon industry, which now can be carried on profitably in Kansas because of increased market facilities, is sure to develop rapidly, in the opinion of Mr. Harris.

"Where capons are raised in large numbers," says Mr. Harris, "it is now possible to ship them direct to large cities where there is a ready sale at good prices. Owing to the prevailing scarcity of meat producing animals it is probable that the capon will find a permanent place on many of the farms of the middle west and will be a source of constant profit.

"Numerous buyers in small towns have made quotations in the last season ranging from 14 to 18 cents per pound live weight depending upon the size of the capon. Where capons are raised on the farm this allows a good margin of profit.

NOT FOR BROODING CHICKS

"The operation necessary to produce capons is simple and can be performed by any one after a little practice. The capon does not as a rule grow much more rapidly than the cockerel but puts on more pounds of meat for the amount of food consumed, owing to the fact that he is much more quiet in

No more delicate morsel is to be found on any table than a well fattened, properly cooked capon, according to Mr. Harris. Every farmer should have at least 25 or 30 of these birds to be used on his own table in the fall and early winter.

"The capon is more of a curiosity than a success as a mother for young chicks," asserts Mr. Harris. "While the milk is fit for human consumption. It is true that he will brood chicks, it is true also that up to the time the cow. She does better on it than on chicks are two weeks old the capon seems to delight in seeing how many he can stand on in a given period of both in milk and in health, when she and never seem to realize the damage they are doing until it is too late."

MORE POWER TO COUNTY

ED. T. HACKNEY FOR LARGE AMOUNT OF SELF GOVERNMENT

Would Cut Down Detailed Work of Leg islature and Place Local Affairs in Hands of Tribunal, Subject to Initiative and Referendum

Give counties a large amount of self government and put business short cuts into county business, urges Ed. T. Hackney, president of the board of administration, who was at the Kansas State Agricultural college this week. The cost of county and township business can be reduced more than half and the work be made at the same time much more efficient, Mr. Hackney believes, by transferring from the legislature to county tribunals the detailed problems of local government.

"The tribunal," explained Mr. Hack



ED. T. HACKNEY

ney, "should consist of the five constitutional officers of the county and all other county offices should be abolished, except the probate judge, also a constitutional officer, whose duties should be extended to a general civil jurisdiction up to \$1,000, and the number of judicial districts decreased. This would make a tribunal composed of two members elected at large and three by districts.

"The county superintendent should be chairman and be in direct touch with the schools. The district clerk should be secretary and keep all the records of the counts and the county, being ex officio county clerk and registrar of deeds. One of the commissioners should have the public safety department and should be ex officio sheriff, coroner, and surveyor and should have charge of the roads, health, and the enforcement of all laws, state or county. Another commissioner should have charge of assessment, taxation, and finance, and be ex officio treasurer and assessor. The other commissioner should have charge of the public buildings and the poor, and should do all the purchasing for the county, the townships, and school districts. This service alone would many times pay his expense in saving on goods purchased.

CREATE COMMUNITY TOWNSHIPS

"This tribunal should be given full power to manage and control all of the local affairs of the county, including bonding, taxation, finance, school systems or propositions, subject to an adequate initiative and referendum by the people.

"The present congressional townships should be wiped out as they would have no function, both the roads and the assessment being now looked upon as a county function. It is seldom that a congressional township has any common interests. In the majority of such townships the citizens legislature that passed the first real do not have even the same trade center general fee and salary law for the and their community and road inter-

ests are rather antagonistic than oth-

"In place of the congressional township I would create such number of community townships as the judgment of the county tribunal might direct. These should so far as possible in clude people of the same trade, church, and school community-people who come into frequent contact with one another and have common interests. This community township should be given such machinery and power as would allow the largest amount of help to the upbuilding of the community along physical, social, political, educational, and religious lines.

"This would reduce the number of county officers from fifteen to six; the number of township officers to the minimum. It would keep a county board constantly in touch with all the county business and this board with a few deputies could do the work at less than half the expense. It could employ competent experts to look after the legal and other expert problems. The purchasing could be done at wholesale. The moneys of all the organizations could be kept at interest by the county and disbursed by it on proper order, thus doing away with the large number of shortages that occur in townships and school district treasuries on account of haphazard methods. It would insure uniform assessment and road treatment for the county as a unit road treatment. It would make it possible for the people to better their condition vastly without waiting upon other communities and the biennial, slow moving legislature.

COUNTIES SHOW WIDE DIFFERENCES

"The several counties present the widest possible divergence when it comes to density of population, towns, and their population and location with reference to the center of the county, number of school districts, and good road possibilities. To attempt to legislate for all these counties and treat all fairly is impossible. But if these local communities, with the county as a center, can have self rule in their local affairs, they can easily work out such systems of schools, roads, and community life under the general laws of the state, as will be of lasting benefit.

"The state statutes can be reduced to one-half their size, the number of bills considered by the legislature reduced three-fourths, and the number of acts passed reduced to correspond. A business administration can supplant a partisan one. Jurors and witnesses can be summoned by telephone or registered letters. Election notices may be published to a reading people without the 10 cent charge for posting them. Business short cuts can be put into county business. The expense of county and township government will Guy S. Lowman Would Have All Farm be reduced more than half and it will be many times more efficient."

WHEN POPULATION WAS TRANSIENT

Mr. Hackney points out that there was a time when the transient character of the population and the numerous speculators who preyed upon the people of the several communities made it necessary to have general laws for the state as a whole. At that time public policy dictated that this transient population should not be permitted to saddle upon a community large bonded indebtedness. Such reasons no longer govern, for each community has now a stable population, and each should now have the largest possible amount of self government.

"Our county and township governments," said Mr. Hackney, "are antiquated and archaic and exceedingly expensive and should be modified in the interest of economy and efficiency. In 1897, while presiding over the committee of the whole as a member of the

(Concluded on Page Four)

HUNDREDS OF FARMERS ARE EX-PECTED FOR ANNUAL MEETING

Results of Experiments in Producing Yearling Beef Will Be Presented-Program Includes Addresses by Prominent Kansans and Others

One of the big live stock events of the year will take place June 9, when the Kansas State Agricultural college will be host to hundreds of live stock farmers and others at the annual meeting in Manhattan.

P. W. Coburn of Kansas City, Kan., president of the largest bank in the state and president of the National Bankers association, is on the program for a talk on "Financing the Cattleman." W. R. Stubbs, former governor, will speak on "The Relation of the Range Cattle Business to the Feeding Industry."

DEAN CURTISS WILL SPEAK

From outside the state will come Charles F. Curtiss, director of the Iowa Agricultural Experiment station and dean of agriculture in the Iowa State college. Dean Curtiss has been prominent in live stock and other agricultural work for many years. The subject of his address has not yet been announced.

Arthur Capper, governor, has been asked to preside at the conference. Local speakers will include Dr. H. J. Waters, president of the college; W M. Jardine, dean of agriculture; W. A. Cochel, professor of animal husbandry; and others.

Results will be presented of tests made at Manhattan in feeding 100 calves to make yearling beef. These tests are to show a comparison between shelled corn and ground corn and corn and cob meal, between ground kafir and ground corn, and between kafir heads and ground corn and corn and cob meal, The effect will also be shown of adding silage to a ration of corn, cottonseed meal, and alfalfa hay.

BIG CROWD AT HAYS

The adjourned round-up at the Fort Hays Branch Experiment station April 20 attracted more than 500 people-the largest crowd that has ever attended a live stock meeting there. Great interest was manifested.

Dr. Henry Jackson Waters, president of the agricultural college, and L. E. Call, professor of agronomy. made addresses. The results of the feeding tests were explained by W. A. Cochel, professor of animal hus-

PHYSICAL TRAINING IN EVERY COUNTRY SCHOOL

Boys Take Part in Gymnastics and Games

Physical training for farm boys of Kansas-either competitive or otheris advocated by Guy S. Lowman, professor of physical education in the Kansas State Agricultural college. This training should be given prominence in every country school.

Changed conditions of rural life have resulted in an awkwardness in movement on the part of farm boys, according to Professor Lowman. The change has been largely from heavy physical labor on the part of the individual to the present type of work, which is essentially that of operating machinery, and is causing boys to assume incorrect postures, which are likely to become more or less perma-

"Farm boys have developed the large muscle groups to the exclusion of the finer accessory muscles," says Professor Lowman. "The result is that the motor nerves of the brain controlling the finer muscles are undeveloped.

"Gymnastics, educational freehand laying."

STOCKMEN HERE JUNE 9 for the development of the finer muscle TO MILL POTATO FLOUR groups, plays and games, and competitive athletics are the correctives that should be employed. The competitive athletics should be for the older

Students in the Kansas State Agricultural college are given training in games and gymnastic exercises so that they may apply their knowledge in their home communities.

DANIELS NAMES POTTER FOR IMPORTANT PLACE

Dean of Engineering Will Head Indus trial Preparedness Work for Kansas-To Make State Inventory

A. A. Potter, dean of engineering in the Kansas State Agricultural college, has been made chairman of the board of directors of the Organization for Industrial Preparedness for Kansas



A. A. POTTER

and as associate member of the Naval Consulting board. Dean Potter's appointment to the boards comes from Josepheus Daniels, secretary of the navy, to whom the dean was recommended by the American Society for Mechanical Engineers.

It is the purpose of the Organization for Industrial Preparedness to make a careful inventory of the industrial resources of each state in the union. This will insure to the federal government the backing of the full industrial strength of the country in case of emergency.

"There can be no higher service to the country," writes Secretary Daniels to the dean, "than that contemplated in the plans of the committee on industrial preparedness of the Naval Consulting board, which had in hand the general direction of the work in question. The war in Europe has taught us that industrial preparedness is the foundation rock of the national defense, and to the end of accomplishing it in full measure you can contribute a large and patriotic service for the common interest of this republic."

LAYING HENS NEED ONLY AMPLE SUPPLY OF GRAIN

No Special Care Is Needed in Feeding Them in this Season

Little care need be exercised in feeding laying hens at this time of year, \$125 to \$140 each. Thus a difference other than feeding plenty of grain, ac- in value of \$125 to \$160 was due to no cording to N. L. Harris, superintendent of the poultry farm of the Kansas State Agricultural college.

"Nature furnishes an ample supply of bugs and worms, thus giving the protein portion of the ration," says Mr. Harris. "The hens are also getting all the necessary succulence in the green feed they find.

"The kind of care that the hens re-

COLLEGE DEPARTMENT WILL DO TEST WORK FOR GOVERNMENT

Even in Absence of War or Other Calamity, American People Can't Always Eat Wheat Bread-Kafir Experiments Are Planned

If because of war or for any other reason the people of the United States ever have to eat potato bread the Kansas State Agricultural college will have been one of the factors in making it practicable.

The department of milling industry has just received from the United States department of agriculture 15 barrels of desiccated potato to be milled. This product has never been milled before in a mill equipped with purifiers.

The local milling department returned most of the flour to Washington but will probably retain a small amount for further experimental pur-

WON'T MAKE LIGHT BREAD

"Light bread cannot be made exclusively from potato flour any more than from cornstarch," commented L. A. Fitz, professor of milling industry. "It contains nothing which will hold the gas. The potato bread used in European countries is made of potato flour mixed with other flours in varying proportions.

"It is only a question of time until at least a part of the people in this country will have to eat other bread than that made exclusively from wheat flour. That has been the case in every other country when population has become dense."

THERE'S PREJUDICE AGAINST KAFIR

The department of milling industry has also a shipment of kafir to be milled. Kafir is now used to some extent in the manufacture of starch and by brewers and distillers in place of corn grits.

The milling department plans to work upon the grain with the idea of widening its field of use. Prejudice, according to Professor Fitz, has in part prevented its more extended use up to the present time.

GIVE HORSES A CHANCE WHEN THEY ARE YOUNG

Colt Will Never Develop Properly if He Is Stunted in His Early Growth

Give the colts a chance! No colt can develop into a large useful horse if he is stunted in his early growth.

The result of good care and feeding s forcefully shown by the condition of the young work horses of the animal husbandry department of the Kansas State Agricultural college. These horses were purchased three years ago as weanlings. They were given care and proper feed their first winter and were in a good healthy growing condition when turned out to pasture in the spring.

When 3 years old these colts were worth \$250 to \$300 each. Colts of the same age and from the same mares, but kept on the farm and given the usual farm treatment were worth only other reason than the care given to the horses as colts.

"The horse is made the first 18 months of his life," says Dr. C. W. McCampbell, assistant professor of animal husbandry in the Kansas State Agricultural college. "If he is stunted he never reaches his maximum development.

"Too often colts are turned out to ceived during the winter will show up rustle for themselves the first winter in their laying the next six weeks. and all such colts can do is to keep Those hens that were well cared for alive. Their growth is stunted and and well fed will do the best spring they make a small ordinary type of horse."

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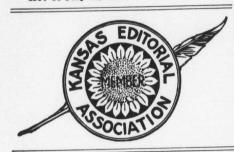
H. J. WATERS, PRESIDENT Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor ADA RICE, '95, M. S. '12..... Alumni Editor

Except for contributions from officers of the sollege and members of the faculty, the articollege and members of the factory, the attraction of the Kansas industrial rare written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are invited to use the contents of the paper freely

The price of THE KANSAS INDUSTRIALIST is 75 cents a year, payable in advance. The paper is sent free, however, to alumni, to effects of the state, and to members of the

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SATURDAY, APRIL 29, 1916

There's no longer any need of leaving any problem unsolved. Just take it to the Chicago judge who decided officially that Lord Bacon wrote the Shakespeare plays.

solely on financial matters and as soon they should obtain the profits, or the as profit ceases, even temporarily, coöperation ceases too.

The Rev. George Cabel Moore of Brooklyn pleased most people of sense when he published the statement, "The house of God is not the place for the exhibition of dry goods."

It is in Indiana, strangely enough, that orthography has attained the pinnacle of fame. A court injunction has been sought to restrain a spelling champion from changing his residence in order to win more prizes.

OF EDUCATIONAL VALUE

ter as to the earning capacity of engineering graduates are of distinct exhibit of 3000 B. C., the seal of a educational value. While it is true king impressed in clay, is not printing that financial return is not to be the in the modern sense at all, but it is of only guide as to the value of college training, at the same time it is gener- true printing cover a series of centually recognized nowadays that the ries. It is a little humiliating to some prospective student has a right to citizens to have it forced on their atknow what financial return a particular course of training is likely to yield ing, at Cambridge, Mass., in 1638, studies will probably be to him. The and by Spaniards. educated man or woman renders special services to society, and for these services society is recognizing that it ought to pay.

Surveys similar to the one made by Dean Potter have been undertaken by a number of eastern institutions which aim at liberal rather than technical education. Few such statistics are available from technical institutions, and it is to be hoped that further investigations of this type may be made in all lines of technical activity.

NO WASTE PAPER HERE

Reports of boards of education and other public bodies are looked upon frequently as waste paper. The editorial comments on the Kansas board of administration's report, which are reproduced elsewhere in this paper from the Journal of Education, show, however, that when care and attention have been given by a board not only to its work but to presenting that work to the public, which has a right to know of it, the report becomes a document of interest even in far distant places.

Educators are on the lookout for modern ideas stated in a clear and modern way. In this report it is "its clear, concise, attractively phrased statements of conditions that are vital" which have made it of more than slight and local interest. The edito- tion, one of the interesting exhibits at with a view to accurate experiments in Agricultural College.

rial emphasizes the public service activities of education not only in the direction of material matters but along such lines as music and other phases of community betterment.

It is worth while for a state to attract attention from outside not for freak human interest material, but for constructive policies. This is particularly the case in education. Many men and women in deciding what place to make their home consider among the first things the educational facilities available. These people, moreover, are the most desirable a state can obtain as permanent residents. The sort of information which reaches these people is the kind that counts constructively for the interest of the

MAKING THE FARM INTERESTING

The season is at hand when the farm boys and girls will most of them be released from school duties and will spend several months at home. The summer months give just as large an opportunity to make the farm home attractive as do the less busy days of winter.

It is not necessary that the boy or girl should work all his time while he is at home. Boys and girls in the cities do not do so except in the slums, and the average farmer has more means than the average city resident. Some time, definitely set off if possible, should be allowed for play.

Then, too, part of the work that the children do at home ought to yield a definite return of money or something else to them. They should have, per-The trouble with a great deal of so- haps, bits of garden which they should called cooperation is that it is based plan and cultivate, and from which raising of a few farm animals may be worth while. A girl may be interested in planning and cultivating a flower garden and providing flowers for the farm home and the church which the family attends.

All these things give children pleasure and at the same time give them an interest which is likely to become permanent in the work and life of the farm.

THE "ART OF PRINTING" SHOW

Few exhibitions of historic interest in New York have had the grip of the one now going on in the National Arts club on Gramercy square, Man-The statistics gathered by Dean Pot- hattan, which is devoted to the art of printing. Of course, the Babylonian cognate character. The specimens of tention that the earliest colonial printhim, just as he has a right to know of was antedated by a hundred years in what specific value any subject that he the City of Mexico under Spanish rule

The fifteenth century invention of movable types made books as we understand the term possible. The immense number of so-called books burned by order of the Caliph Omar at Alexandria were stylus made. Each was a single copy and few had duplicates in existence, which made the vandalism as bad as anything in the world's history.

No important principle in typography followed the movable type invention till the linotype came in. Different designs, different materials for types, and, of course, a vast improvement in presses had to be noted. But the linotype, setting, not type, but the matrices of type, and using the matrices over and over again, has made the setting of book matter very much cheaper, and has rendered the modern voluminous newspaper a possibility.

It may be a slight exaggeration to say that civilization depends on the art of printing, but much of our educational facilities, most of them, spring out of this art, and popular information on what is going on in the world has been a distinctive if not an indispensable part of our civilization. Brooklyn Eagle.

COMMUNITY BIRD HOUSES

Exploiting the idea of bird conserva-

the Fourth International Flower show, which took place in the Grand Central palace from April 5 to 13, was a collection of community bird houses. With the general impression that a flower garden without birds is like a music room without a piano, the bird house has come to stay in the general scheme of landscape gardening, and all sorts of little bird houses were shown, in all styles of architecture, ranging from the Doric to strictly colonial de-

"Have your bird house match your home," is the slogan, and for the bungalow the bird house is itself a tiny bungalow, while for other homes the

comparison of varieties and methods of propagation.

The Virginia creeper clinging to the walls of all our buildings never sprang into foliage more rapidly than during the past week.

Photographs of the kitchen and printng office were taken on Monday, from which new cuts will be made for the forthcoming catalogue.

Solid stone crossings six feet wide are taking the place of the broken asphalt walks at the drives between the chemical laboratory and mechanics

Another patch of mangels will be

Agriculture and the Beautiful

Arthur D. Cromwell

and plants makes it plain that their lives are largely shaped

and controlled by influences that make for beauty. The

beauty of shape and color in flowers is undoubtedly due to

the choice of insects that are attracted by them. Even the

odors are due to the choice of insects. The mating of ani-

mals has led to a natural selection that has given us the

bright plumage and other colored parts, the heavy manes,

the proud struts, and the beautiful shapes of many of the

animals. While this instinct for the beautiful is present

in all normal children, it may, like other instincts or

tendencies, be allowed to remain dormant until the child

ceases to respond or get pleasure from the really beautiful.

Much of our hard pioneer life has tended to crush out this

instinctive love for the beautiful. And yet, strange as it

may seem, the love for the beautiful is a very "practical"

affair. When our farmers are more like the farmers of

France and put up their farm products in neater, nicer

looking form, the prices will rise rapidly. When their

fruit is better sorted and boxed, when their butter looks

more attractive, when their eggs are graded as to form,

color, and size, when they bring their milk to town in more

attractive cans, the amount consumed and the price paid

will be greatly in favor of the farmer. Even a beautiful

lawn and well kept buildings often win a farmer city custo-

period esthetically for many states. The buildings and

other temporary improvements of the pioneers are to be

replaced by permanent improvements. If our schools turn

out a generation sensitive to the beautiful, we need have

no fear but that the beauty of the country will give way to

greater beauty of the permanent home makers. Esthetic

culture will teach the country folk to love their open skies,

their beautiful groves and open prairies, their wonderful

landscapes with their golden harvests, their woods and

their orchards. If we teach the children to appreciate the

beautiful, they will be content to dwell in the country, and

when they are away, they will long to return to the beauty,

the quietness and contentedness of the country. But we

cannot make children love the beautiful by talking about

it and nothing more. To love the beautiful, we must study,

and dig, and plant, and compare, and hold communion fre-

quently, and for a long time. Nothing short of living con-

sciousness of the beautiful will make us love the beautiful.

The first half of the twentieth century is the critical

mers who pay much more than the regular market price.

HILDREN have an instinctive love of the beautiful.

In fact, love of the beautiful begins way back of the

human race. The most superficial study of animals

THE OLD HOME Madison Cawein

An old lane, an old gate, an old house

by a tree; A wild wood, a wild brook-they will not let me be;

In boyhood I knew them and still they call to me.

Down deep in my heart's core I hear them and my eyes

Through tear-mists behold them beneath the old-time skies, 'Mid bee-boom and rose-bloom and

orchard-lands rise. I hear them; and heartsick with long-

ing in my soul, To walk there, to dream there, beneath

the sky's blue bowl;

Around me, within me, and weary world made whole,

To talk with the wild brook of all the

long ago; To whisper the wood-wind of things

we used to know When we were old companions, before my heart knew woe,

To walk with the morning and watch

its rose unfold: To drowse with the noontide lulled in

its heart of gold; To lie with the night-time and dream the dreams of old.

To tell to the old trees, and to each listening leaf,

The longing, the yearning, as in my boyhood brief,

The old hope, the old love, would ease me of my grief.

The old lane, the old gate, the old house by the tree,

The wild wood, the wild brook-they will not let me be;

In boyhood I knew them, and still they call to me.

SUNFLOWERS

People who appear in white boots should not have big feet.

No, no, Lucile, the pussyfoot is not a creation of Mr. Vernon Castle's.

We are unalterably in favor of severing diplomatic relations with the weather man.

Justice Hughes is doing a wonderful job of keeping his mouth shut. It is a pleasure to listen to him.

Some of the older inhabitants will remember Mr. Peter Karageorgevitch as the king of a former European country known as Servia, or Serbia.

JUST ONE CHANCE NEEDED

O elusive and desperate Villa,

Pray give us one more chance to silla; Then after the fun, Caused by the gun,

Not a soul on this earth would billa.

GASTRONOMIC ALLIES

Rhubarb Carrots

Sassafras tea

Greens

Cauliflower

Cucumber salad

THE EFFECT OF BAD DRIVING

There is no more painful evidence of inefficiency than that of an unintelligent man driving a knowing horse. The spectacle of an untrained driver taking 15 minutes to back a trained horse into a narrow driveway is too common to attract the notice of the casual passerby but it is a tragedy to lovers of horses and to people of ordinary business sense.

The nervousness and confusion of the mismanaged horse increase the impatience and wrath of the driver.

And the owner and the employer lose by both.

As the price of gasoline goes up, and as the military demand for horses increases, conserving these valuable animals becomes an important econo-

It is painful to make expediency a cure for cruelty to animals, but most owners of horses know how a horse should be driven, and those who take care that they are properly driven are saving money just now.—Wichita Beacon.

houses range from a miniature colon-

ial mansion to the rude shelter con-

structed from the stems of trees for the

old country farmhouse. The community bird house, where all the birds of the neighborhood can gather for shelter and for feeding, is being advocated by bird lovers. Here the feathered neighbors can gather for regular meals, instead of subsisting on the haphazard charity of those persons thoughtful enough to throw out a few crumbs for their benefit.

One of the models of community bird houses shown was a pagoda like structure, with five doorways, always open, and a slanting tiled roof, projecting far over the entrances. The structure is to be fastened securely to a pole or in the crotch of a tree.

All the new style bird houses are so arranged that they can be cleaned from time to time, to assure the new tenants comfortable quarters. Some of them are also provided with baths.-New York Herald.

A QUARTER CENTURY AGO Items from The Industrialist of May 2, 1891

Rare bugs are legal tender in trade and barter among the second year students.

planted this spring, last year's trial having demonstrated beyond all doubt that they are an excellent stock food with hay.

The twenty-eighth annual catalogue has been revised, and the copy will be in the hands of the printer next week. The list of graduates will again find place in the book.

Many experiments in methods of seeding rather than tests of varieties will be made with corn this season. Planting is in progress and will be completed next week.

Two of the fourth-year students are regularly employed as reporters for newspapers in Manhattan-A. O. Wright on the Nationalist and C. A. Campbell on the Republic.

Professor Kellerman was agreeably surprised Friday evening by a party of young folks who came to add a basket of fruit and a handsome May basket to the number of his birthday

The new flag purchased last winter was presented with proper ceremony to the college cadet battalion on Friday of last week. It is a beautifully embroidered silk flag and was procured from the firm which furnishes the government supplies, at a cost of \$80. The new apple orchard is planted It bears the inscription Kansas

W. F. Taylor, '15, a graduate of the agronomy department of the college, has gone to Arizona where he has accepted a position. He has been assisting in the management of the college farm since his graduation last spring.

The University Journal, Lincoln, Nebr., has an attractive number for April. It prints a three column article on "The Home Economics Department" by Miss Alice M. Loomis, '04, on February 28. Miss Loomis addressed the opening session of Child Welfare week on the subject, "The Food of the Child."

Ivar Mattson, a former student of the college, has been appointed traveling salesman for the Louden Farm Machinery company, with headquarters at Philadelphia. Mr. Mattson returned to Manhattan last January from Argentine, South America, where he was farm development agent for the Argentine Central Railway company.

K. C. Davis, '91, head of the Knapp School of Country Life of the George Peabody College for Teachers, Nashville, Tenn., heads the list of educators in a call to the teachers of agriculture in the normal schools of the United States to meet in conference to consider problems of common interest. Doctor Davis was in attendance at the session of the Southern Sociological congress which met April 16 to 20 in New Orleans.

MARRIAGES

RING-BUCKMAN

Miss Bessie Ring and Mr. Glenn Buckman, '14, were married in Mc-Pherson a few days ago. They are now on a trip through the south but will be at home in a few weeks on the Buckman ranch near Topeka.

GOULD-IRWIN

Miss Amy Gould, '15, and Mr. Don Irwin, '15, were married April 9 at Basin, Wyo. Mr. Irwin was a member of the Hamilton society and was its continued Mr. Thompson. orator. He was also president of the Young Men's Christian association while in college and was prominent in class affairs. Mrs. Irwin was president of the Ionian society and was its corn, 12.11 tons per acre; sweet sor orator. She was also a member of ghum, 16.93 tons per acre. In 1915 Zeta Kappa Psi. Mr. and Mrs. Irwin will make their home near Basin, Wyo.

DEATHS

ROBERT JAMES BROCK

Robert James Brock, '91, aged 45

tan for a number of years. He later discard sweet sorghum for a crop became a member of a Portland law firm. He was for several years a member of the board of regents of the college. He is survived by his wife, Mrs. Mayme (Houghton) Brock, '91, and by his mother.

WRITES OF TEACHERS' COTTAGES

R. S. Kellogg, '96, secretary of the National Lumber Manufacturers' association, is author of an illustrated bulletin on "Teachers' Cottages," which he prepared in coöperation with the United States bureau of education. Mr. Kellogg says in discussing the subject:

"The teacher's cottage, or 'teacherage,' is a permanent residence for the teacher, built near or in combination with the schoolhouse. It serves the same function that a parsonage does in connection with the church.

"A few years ago an energetic young country school teacher in the state of Washington was utterly unable to find a family that would accept her as a boarder for the school term. Nothing daunted, she persuaded the authorities to move a portable cook house into the school yard. It was rains set in. Her younger brother, a minds and strong characters."

12 year old boy, stayed with her, and they lived in the cook shack the intire term. The example convinced the district authorities that they should provide a suitable dwelling place for the teacher, and the first teacher's cottage in the state of Washington was ready the following September, when it was occupied by the teacher and her mother. The same teacher stayed there three years, and finally left to complete her college course, but the teacher's cottage had proved its mission. The state superintendent of schools took up the question, the plan spread to other districts. and now the state of Washington has 108 of these cottages, which are found in 29 of the 39 counties of the state.

HOME COMING FOR 1911 CLASS

A special home coming at commence ment for the class of 1911 has been arranged. At a meeting of the class Miss Mildred Huse was elected president and Elmer Kittell secretary. It is planned to have a day's picnic as a part of the reunion, with a baseball game between the married and unmarried men as a feature. Out of 205 members of the class of 1911, 99 are

The class of 1911 is hoping that other classes will arrange for reunions the fifth year after graduation and every five years thereafter.

The next meeting of the 1911 class will be held Saturday evening, May 6, at the home of Mr. and Mrs. Elmer Kittell, 808 North Juliette avenue, Manhattan.

WHAT CROP FOR SILAGE? ANSWER QUESTION NOW

G. E. Thompson Discusses Yields of Corn and Sorghums in Recent Seasons _1915 Was Unusual

"What are you to use for your silage crop this year? Now is the time to decide," says G. E. Thompson, specialist in crops in the division of extension, Kansas State Agricultural

"Good farming demands that that crop be planted which will make the most tons of good silage per acre,'

"At the Kansas Experiment station during the years 1912, 1913, and 1914 the average silage yields were secured as follows: kafir, 10.66 tons per acre; the sweet sorghums produced 23.4 tons of silage per acre.

"The excessive sourness of sweet sorghum silage of 1915 is due to the fact that it was cut and put into the silo before it was sufficiently matured. The cool season of 1915 prevented the sorghums from maturing properly, years, died of Bright's disease Friday, but such conditions are not likely April 21, at his home in Portland, Ore. to occur again for a number of years Mr. Brock practiced law in Manhat- and the growers of silage should not which will yield less because of one bad season.

"The best sweet sorghum for silage in eastern and central Kansas is the Kansas orange. In western Kansas, red amber and western orange sorghum are usually most desirable.'

BALANCED RATION FOR BABY AS WELL AS PIG AND CALL

Home Economics Specialist Says Children Get Too Much Fat and Candy

Babies, as well as pigs and calves should receive balanced rations, asserts Miss Alice Poulter, extension specialist in home economics in the

Kansas State Agricultural college. "The farmer insists that his pigs and calves be fed regularly and get only such foods as are necessary to supply the needs of the animals," says

"The farmer would not think of taking away all milk from the young pigs or calf and replacing it with meat, yet children often get little or no milk and heating the water to the disired temlarge quantities of meat. Pigs are perature. The entire process can be only 20 feet long and covered with fed with a view to producing strong carried out by one man. canvas, but she partitioned it off with healthy bodies. Babies should be fed a curtain, furnished it, and put on not only for physical development, but the sacks, but not more than half a ready-made roofing when the winter in a manner to make possible keen bushel of seed should be treated at one

TO KILL SORGHUM SMUT

TREAT SEED BEFORE PLANTING IT. URGES PLANT SPECIALIST

Milo Is Only Kind Not Susceptible to In jury-Formaldehyde and Hot Water Are Two Agents Used for Preventing Serious Grain Disease

Kansas farmers who expect to plant sorghums this season should treat the water in barrel 2 from being lowtheir seed before sowing with a view to smut prevention, warns L. E. Melchers, instructor in plant pathology in the Kansas State Agricultural college.

"It is not uncommon in Kansas for the annual loss through kernel smut to be from \$400,000 to \$1,000,000," says Mr. Melchers. "Milo is the only sorghum not susceptible to smut and consequently requiring no treatment.

"The two methods in the control of the kernel smut of sorghum are known as formaldehyde-formalin-and hot water treatments. Both are effective, although the former probably is more generally used, as it is more easily carried out on a large scale.

"This treatment consists of mixing one pint of full strength formaldehyde with 30 gallons of water in a suitable vat, tank, or barrel. The seed to be treated is placed in gunny sacks and plunged into the solution for a moment, then raised, allowed to drain slightly. The process is repeated until it is certain that all the grain is wet. The sacks of seed are allowed to remain in this solution for one hour. At the end of this time the sacks and their contents should be removed. The seed should be spread out in thin layers on a clean floor or canvas free from smut contamination, and allowed to dry. After it is thoroughly dry it may be stored in clean sacks, or it may be immediately planted."

TAKE NO CHANCES WITH SMUT

In order to eliminate all possibilities of contamination after the seed has been treated, new sacks should be used for storing the seed, or the sacks should be soaked for a period of two hours in the solution employed for treating the seed for smut, points out Mr. Melchers. It is advisable to sprinkle the floor with a strong solution of formaldehyde before spreading the seed to dry. Bins and drills should be made free from smut spores by washing them with a strong solution of formaldehyde. The germination of treated seed should be tested, and if the germination is low, the rate of planting should be proportionately increased.

Although the hot water treatment is efficient in ridding the contaminated seed of smut spores, it is a little more difficult to perform effectively and requires considerable care. The equipment necessary is also a matter to be considered. Except where steam is accessible, the formaldehyde treatment is easier. A small steam boiler or additional apparatus necessary for two accurate Fahrenheit dairy thermometers, three barrels, tanks, or vats, and coarse gunny sacks. The barrels should be numbered 1, 2, and 3. The temperature of the water in barrel 1 should be 120 degrees, while that of barrel 2 must be kept between 134 and 140. Barrel 3 is a cold water

HOW TO USE HOT WATER

Two half-inch pipes should be run from the main steam pipe to a place directly over barrels 1 and 2. It is best to attach pieces of hose, which should lead into the barrels, to the ends of the half-inch pipes. This Miss Poulter. "Children are fed fried gives flexibility, and the hose may be food coated with fat, and are stuffed easily taken out of the barrels if necwith candy and sweets between meals. essary. Shut-off valves should be provided at the ends of the half-inch pipes. By means of these, the volume of steam can be regulated, thereby

The seed to be treated is placed in time. More than sufficient room the brow of the state."

should be allowed in the sacks for the swelling of the seed. The sacks and their contents are first dipped into barrel 1 for a moment, raised, and allowed to drain slightly. The process is repeated until it is certain that the seed is thoroughly wet.

This will raise the temperature of the seed to within a few degrees of the temperature of the water in barrel 2, thereby preventing the temperature of ered when the sacks of seed are placed in it for the treatment. The temperature of the water in barrel 2 must be kept within the range of limits-134 to 140 degrees. The seed is kept in this hot water-barrel 2-for 12 minutes. Cold water may be added if the temperatures approach the danger mark. At the end of the stated time, the sacks should be removed and the grain spread out in thin layers and allowed to dry. If the seed is not immediately spread out, it should be plunged into barrel 3 (cold water) for a few minutes. This will reduce the temperature of the seed, otherwise injury would result from the prolonged high temperature.

The most effective and accurate method of applying the hot water treatment on a large scale is by means of steam. By careful manipulation, however, it is possible to treat seed for smut by means of the hot water method, even though steam is not available. The process is the same as already described, but it is necessary to make provision for heating the water. A supply of cold water is also necessary. The temperature of the treating bath is regulated by adding hot or cold water as required. The larger the barrels or vats, the easier it is to regulate the temperature of the

JOURNAL OF EDUCATION COMMENDS KANSAS BOARD

Boston Publication Praises Report of Work in State Educational Institutions as Suggesting Great Vision

The second annual report of the Kansas board of administration is warmly commended in an editorial in the Journal of Education, which is published in Boston and is one of the best known educational papers in the

The comment of the editor is to the effect that the report "makes exceedingly interesting and instructive reading. Its clear, concise, attractively phrased statements of conditions that hibitive. are vital make an unusual official document.

"In three years the enrolment in the university, college, and three normal schools has increased from 10,303 to rill. "They do not have to compete 13,673, a gain of 3,370 or 33 per cent.' The paper quotes the report with ap-

"The board is trying to arrange for a series of educational lectures for traction engine is the ideal thing for young women students that will help must receive for the fruit, limits the carrying out the hot water treatment. them to better understand themselves demand to a minimum. The value By means of steam the water is heat- and their life relations. These leced to the desired temperature. The tures will be given to women students by a woman and will be of such high the hot water treatment consists of character that new reverence for the responsibilities of life will open before balances the extra labor involved in the vision of those hearing them. They | their care." will, in a measure, prepare for life problems, and safeguard by teaching as to the dangers of ignorance.

"The new vision of music as a home saving, home building, civilizing influence will stimulate all the students to lend a hand to make it a big success. Kansas has thought too much in the past in terms of the material; and no wonder, with her wealth of grain, cattle, and merchandise of all kinds. Now she is ready to take things for granted, and use them for a redirected effort to bring the higher values of life into the education of her young people."

"Kansas makes a good showing in this report," the editor goes on to say, 'and in several paragraphs it calls upon the people of Kansas to higher ideals. It says with heroic frankness that 'Kansas has thought too much in the past in terms of the material.'

"A great vision is suggested to Kansans by this report, and this board bids fair to place an entirely new halo upon

GOOD PAY TO ENGINEERS

GRADUATES AVERAGE \$2,600 A YEAR AFTER DECADE'S EXPERIENCE

Dean A. A. Potter Secures Data Concerning Alumni in His Division-Most of Them Are in Technical or Executive Work or Teaching

The average engineering graduate of the Kansas State Agricultural college draws \$2,600 a year 10 years after he receives his diploma, according to data collected by A. A. Potter, dean.

Through a well organized follow-up system, Dean Potter has in his office information as to the work and salary of practically all graduates of his division. From the standpoint of salary he has divided them into three groups-maximum, average, minimum. The maximum salaries average \$1,800 two years after graduation and gradually run up to \$3,400 10 years afterward. The average group begins at \$1,200 two years after graduation, rising to \$2,600 in 10 years. The graduates in the minimum group get \$500 in their second year and \$1,400 in their tenth year.

AFTER EIGHT YEARS \$6,000

Some of the salaries run very high. A man who has been out of college but eight years but who distinguished himself as a brilliant student, is receiving \$6,000 a year. Another man is drawing \$5,250 per annum. A 1904 graduate gets \$4,000.

A large number of men after four years' experience are receiving such salaries as \$1,500, \$1,600, and \$1,680. There is a long list of men with approximately 10 years' experience whose salaries range from \$2,000 to \$3,000.

Nearly all the engineering graduates are engaged in practical engineering work, in executive duties connected with it, or in teaching.

GROWING MANY EVERBEARING STRAWBERRIES DOESN'T PAY

They Have to Compete with Too Many Other Fruits-All Right for Home

Growing everbearing strawberries on a large scale for commercial purposes is discouraged by F. S. Merrill, instructor in horticulture in the Kansas State Agricultural college. A few growers made large profits in 1915 from small fields of these berries because of the unusual amount of moisture available. The cost of irrigation in ordinary seasons, however, is pro-

"Standard varieties of strawberries command good prices because they are the first fruit to make an appearance on the market," says Mr. Merwith other fruits. The opposite is true of the everbearing varieties, as they must compete with a large number of other fruits. This condition, coupled with the high price the growe of these everbearing varieties for home use should not be discouraged, however, as they bear fruit the same year they are planted. This counter-

COLLEGE CLASSES TO STUDY HAYS STATION EXPERIMENTS

Students in Soil Surveys and Farm Management Will Visit Western Kansas

The soil survey class under the direction of R. I. Throckmorton, assistant professor of soils, will make a trip to the Fort Hays Branch Experiment station, leaving Manhattan May 5, and returning May 8. While at Hays the members of the class will study western Kansas soil types and investigate the experiments being conducted at the station.

The advanced farm management class under the direction of W. E. Grimes, assistant professor of farm management, will make a similar trip at the same time.

Both classes expect to adopt the 'next-to-nature'' mode of living while at the station, and each man will contribute a frying pan, a sack of doughnuts, or other article of culinary usefulness.

SPRAYS AND PRUNING ARE STEPS TO GOOD ORCHARDS

MODERN METHODS WILL MAKE OLD, NEGLECTED PLANTATIONS ALMOST LIKE NEW, SAYS HORTICULTURIST-WORK MUST BE DONE AT RIGHT TIME

HINTS TO ORCHARDISTS

Spray at the right time. Distribute spray evenly. Use correct materials in right proportions.

Avoid the use of bordeaux mixture in wet weather and limesulphur in hot, sunny weather.

Improve the physical condition of the tree by correct pruning. The object in pruning is to force the development of new wood through the center of the

By the adoption of correct pruning and spraying methods old and run down orchards are made almost like new. They are forced to produce profitable yields.

The horticultural department in the Kansas State Agricultural college has fully demonstrated the value of applying scientific principles in orchard renovation. Kansas orchardists by the application of proper methods can make their apparently worthless trees a real commercial asset.

"One of the first steps in the improvement of the physical condition of a tree," says F. S. Merrill, instructor in horticulture, "is to prune the dead and diseased limbs and thus reduce the source of infection from fungous diseases and insect pests.

PRUNING MAKES MORE FRUIT

"The pruning causes the production of new wood, increases vigor, and when carefully done should raise the fruit production of the tree. For renovation of old, neglected orchards winter pruning is to be advised. Experience has shown that winter pruning has a tendency to increase production of new wood tissue, and this is one of the primary requisites.

"Trees that have not been trimmed for several years usually have tall, upright limbs and produce fruit near the ends of these limbs only. The central portion of the tree is commonly void of fruit bearing wood.

"It should be the object, therefore, to force the formation or development of new wood through the center of the tree, thus increasing the rate of production. Many of the old trees have grown so tall that it is nearly impossible to reach them with the spraying mixtures. The height at which the fruit is produced greatly increases the cost of picking.

"The top should be reduced and this may be effected by removing the upright growing limbs to the lower, out spreading branches. This operation not only reduces the height of the growing wood but also opens up the top so that the sunlight reaches the interior portions of the tree and aids in the formation of the fruit buds on the previously shaded part of the limbs.

SUN BURNS SOME TREES

"This should not be carried to extremes, however, for in certain varieties, such as Ben Davis and Gano, too severe exposure to the intense rays of the sun may produce a burning or scalding effect that will be injurious. For this reason, the work is frequently arranged so the entire plan of renovation will extend over a period of three years. If, on the other hand, the removal of the upright growing limbs has not sufficiently opened the tops so that sunlight can reach the interior of the trees, some of the smaller limbs may also need to be removed.

"After the top of the tree is improved it usually will be found necessary to thin out the branches on the sides of the tree. In doing this work particular attention should be paid to the wood that is removed. Do not cut any more fruit spurs than is necessary to secure the ideal conditions.

The work may be most speedily done by removing the large limbs, but this method is most likely to remove much of the healthy wood that should be retained for building up the fruit production of the tree. It is therefore better to reduce improper conditions by thinning out the smaller limbs, particularly those that are weak or diseased or are crossing better limbs.

necessary to cut off the lower branches, for these furnish aid to the ground by preventing evaporation, and if the upper portions of the tree have been to produce fine fruit.

TO RENOVATE YOUNG TREES

"On young trees that have been neglected it may not be necessary and sometimes is not advisable to lower the top. With many of these trees, however, it will be necessary to thin out a large number of limbs in order to reduce the competition and to admit the sunlight. The outside and lower limbs should be thinned out as advocated for the older trees. Many of the younger trees may be renovated by summer pruning, especially if the neglect has not prevented the formation of fruit bearing wood."

There should exist between the tops and the roots of the tree a more or less distinct balance, points out Mr. Merrill. Removal of a large portion of the top by winter pruning disturbs this balance, and in an effort to restore it the top is forced into greater activity often resulting in the formation of a large number of water sprouts and in active development of the terminal growth. Such a condition is undesirable in young and well cared for trees, but is of the greatest value in renewing old and neglected

By means of the water sprouts properly cared for, the orchardist is enabled to restore fruit bearing wood to the parts of the tree which, because of the dense shade produced by the top, have lost temporarily this faculty. The water sprouts should be thinned to about eight inches apart and should be headed back so that they contain not more than two buds. In this way the growth on the water sprouts is directed from the weakest buds at the base. Only the one year water sprouts should be selected for the purpose, unless the older sprouts have begun to form fruit buds.

HERE'S WORK FOR SUMMER

This work may be done during the summer months from the middle of July to the middle of August. This up of bordeaux mixture plus two period, however, may greatly interfere with the other activities connected most effective in controlling the secwith orchard management and may have to be postponed until the following winter, when the second step in renovation takes place. At this time, a further thinning out of the top may be necessary that will include the removal of the old limbs and also the thinning out of the surplus wood produced the current season.

After three years of careful and systematic pruning the orchard should be completely renovated, says Mr. Merrill. The subsequent seasons will necessitate the thinning out of the poorer and weaker branches of the annual growth and the maintenance of the desired form of the tree.

"In order to produce the best quality of fruit, free from blemishes, it is necessary to spray the trees thoroughly with the proper materials at the correct time," says Mr. Merrill. "Too much importance can not be placed on the proper application of the material. A tree that has been sprayed correctly will show an even distribution of spray materials in the form of small

off at the tips of the leaves. This frequently causes during unfavorable weather conditions serious burning of the foliage as well as loss of mate-

A KANSAS SPRAY SCHEDULE

A spraying schedule for Kansas is recommended by the agricultural college. First in order is the cluster cup spray, which, when the young blossom buds begin to show pink, should be applied to aid in the control of apple scab, plum curculio, cankerworm, and apple rust.

This spray is usually composed of lime sulphur at the rate of 11 gallons of commercial material and arsenate of lead at the rate of two pounds to every 50 gallons of water. The amount "In renovating an orchard it is not of arsenate of lead may be increased when a severe infestation of cankerworms is to be combated.

The second spray, known as the petal fall spray, is composed usually properly pruned they may be forced of the same materials as the first spray. It is most effective in controlling the codling moth. The object of the sprayer should be to fill the calyx cup full of poison. It should be applied when the majority of petals have fallen, since at this time the calyx lobes are open and the calyx cups can be conveniently filled.

At this time, the young fruit clusters are pointing upward. By means of an angle nozzle or a straight nozzle on an angle attachment the spray materials can be directed into the young blossoms. The disk type of nozzle operated at high pressure usually furnishes the best kind of distribution for this spray.

MUST BE HANDLED PROPERLY

The third spray should be applied from 16 to 20 days after the second spray. It is composed ordinarily of three pounds of copper sulphate, and four pounds of lime to 50 gallons of water plus two pounds of arsenate of

This material frequently causes severe burning of the foliage if improperly made or applied, especially during wet weather. If this condition prevails at the time of spraying, lime sulphur should be substituted for the bordeaux mixture and a spray of bordeaux without the lead should be applied as soon as the proper conditions are resumed. This spray is applied to control the apple blotch, one of the most serious fungous pests attacking the fruit. It is also of some value in controlling curculio, codling moth, and black rot.

Where blotch has been serious a fourth spray may be applied. This should consist of bordeaux mixture plus two pounds of arsenate of lead and should be applied from two to four weeks after the preceding one. Where blotch is not present this spray may be omitted from the spraying schedule.

The final spray should also be made pounds of arsenate of lead, which is ond brood of codling moth and has some additional value in controlling block rot and apple blotch. This should be applied from eight to 10 weeks after the first petal fall spray.

APPLY LIME NOW FOR FALL ALFALFA SEEDING

Leguminous Crops Refuse to Grow on Acid Soils-Don't Use Remedial Agent Carelessly

Apply lime now to fields that are to be summer-fallowed for fall seeding to alfalfa or clover, is the advice of R. I. Throckmorton, assistant professor of soils in the Kansas State Agricultural college.

If the soils are acid the lime should be applied to the preceding crops or from six months to a year before seeding to the legumes. This allows sufficient time for the weathering agents to start the sweetening of this kind of soil.

"Alfalfa and clover refuse to grow material is applied or too coarse a available nitrogen from the air, canspray material may coalesce and run are found in southeastern Kansas and -John Burroughs.

lime is the common way of correcting FOR BIG RED TOMATOES

"The safest form is finely ground limestone because it cannot possibly injure the soil. Careless handling or too heavy applications of burnt lime or quicklime will injure the soil by burning out the organic matter.

"The amount of ground limestone to apply depends largely on the previous handling of the soil but usually varies from two to four tons to the acre. One application in a four or five year rotation is sufficient for most soils.

"The lime should be used as a top dressing on plowed fields and then it should be thoroughly worked into the soil with a harrow or disk.

"It may be scattered from a wagon with a scoop, spread with a manure spreader, or applied by means of a regular lime drill."

TURKEYS ARE VALUABLE SIDE LINE FOR FARMER

Western Part of State Is Especially Well Adapted for Raising Them, Says Professor Lippincott

A more profitable sideline than turkeys for the Kansas farmer can hardly be found for those who are favorably situated for raising them, according to W. A. Lippincott, professor of poultry husbandry in the Kansas State Agricultural college.

"Improper feeding, combined with close confinement, has been the cause of many failures in turkey raising," says Professor Lippincott. "Given free range on the average farm, the poults can generally pick up their own living. One light feed a day for the purpose of inducing them to come in at night is sufficient.

"If the mother hen is confined to a coop and the poults are allowed to run in and out, three times a day is often enough to feed and very little After being plowed, the land should should be given at a time. The poults should always be ready to eat—if they are given all they will eat several times a day, indigestion will result. If there is little or no food outside the coop for the poults to pick up, they should be fed five times a day, only a small quantity at a time.

"A good feed for the first few days after the brood is hatched is stale bread soaked in milk and then squeezed dry. Corn bread crumbs and clabbered milk or cottage cheese is also often fed with excellent results. Green feed and grit should be on hand at all times. As poults grow older, the ration should gradually be changed to grain."

Freedom is the main essential in the care of the adults, says Professor Lippincott. With plenty of range where the turkeys can find insects, green vegetation, the seeds of weeds and grasses, and waste grain, the cost of raising them is small while the profits are large.

Grain and stock farms in the west ern part of the state are particularly well adapted to turkey raising, and especially is this noticeable in grasshopper years. Raising turkeys in confinement is generally unsuccessful, and where it has been tried the results have been discouraging. Plenty of range is essential in turkey rais-

Turkey hens often steal their nests in hidden places. To find these nests proves a long and tedious task. An easy method of finding the nests is to confine the hens early some morning after they have come down from roost and let them out late in the afternoon. Those that are laying will then head for their nests.

Fifteen turkey hens can be mated to a vigorous tom, in the opinion of Professor Lippincott. If 25 or 30 hens are kept, two toms should not be allowed to run with them at the same time, but one should be confined one day and the other the next. When two toms are allowed to run together during the mating season, they fight and the stronger does practically all the mating.

drops over the surface of each leaf on acid soils because the bacteria that he became sufficiently civilized, not I then prepared a bill along the line and fruit upon the tree. If too much aid legumes by supplying them with afraid of solitude, and knew on what terms to live with nature, God nozzle is used, the individual drops of not thrive in these soils. Such soils promoted him to live in the country.

PLANT POPULAR VARIETY IN RIGHT KIND OF SOIL

Length of Growing Season, Sunshine, and Moisture Affect Yield-First Two Weeks of May Are Setting Season-Put Field into Good Condition

The ideal soil for tomatoes is one that warms up early in the season and retains moisture reasonably well. The total yield of tomatoes is influenced by frost, length of growing season, sunshine, and moisture supply, according to M. F. Ahearn, associate professor of horticulture in the Kansas State Agricultural college.

"In choosing the variety to be planted one must consider the purpose for which the product is intended," says Professor Ahearn. "Dwarf Stone and Chalk's early jewel have given excellent satisfaction for home garden purposes. The market demands a variety which has few seeds, thick meaty cavity walls, and tough skin, and is uniform in shape and

"Canneries prefer a variety that yields fruit of firm flesh and is smooth. It must grow a strong vine and stem and must produce a large amount of fruit throughout the season. This tomato should be of a red color that will remain bright in the preserving process. The Stone champion, trucker's favorite, and Chalk's early jewel are used extensively for this purpose. CAREFUL CULTIVATION IS NEEDED

"The time of setting plants depends upon the altitude, the kind of soil, and the climatic conditions. May 1 to 15 is the setting season. The roots should be exposed to neither sun nor wind. Before planting time the field should be put into good condition. be disked, pulverized, harrowed, and carefully cultivated. Every attempt should be made to conserve the moisture present in the soil."

When the field is ready to be planted stripe out furrows with a single shovel plow and then make cross furrows, setting the plants where the furrows come together, advises Mr. Ahearn.

Whether the plant is to be grown for home or for market will make considerable difference in the cultivation methods. For the home garden Mr. Ahearn believes it is well to prune and train the vines. The plants may be pruned to one, two, three, or five robust branches and tied to a single stake or else tied like grapes to a

PUT THEM HOW FAR APART?

The distance apart which tomatoes should be set depends on the variety and the methods of training. The tree tomato may be set as close as two feet each way while the large vinelike sorts should be set at least twice that distance.

If the tomatoes are trimmed to a certain number of stems they should be set closely. Those cut to one stem should be set a foot apart; those cut to two stems, 18 inches apart; and those with three stems, 24 inches apart. In all cases of pruned tomatoes plants may be set as close as two feet between the rows. The merits of this system have been proved by several growers. It permits cultivation late in the season, it is easier to spray for protection against diseases, and it hastens the maturity of the fruit and keeps it from resting on the ground.

The field should be cultivated as soon as the plants are set. This will create a mulch which will conserve the moisture. This mulch should be maintained throughout the growing

MORE POWER TO COUNTY

(Concluded from Page One)

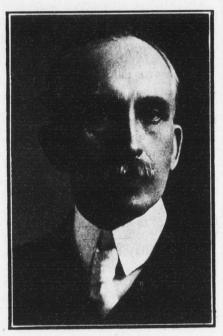
state, I was impressed with the impossibility of providing for the right number of officers and a fair salary for them under our system. What fit Wyandotte and Shawnee counties was Truly man made the city, and after impossible in Stevens and Morton, and of the suggestions I am now making. The same bill has been introduced several times since-particularly in the last two sessions."

HONOR TO DOCTOR BRINK

LEAVING ACTIVE TEACHING, HE RE-CEIVES EMERITUS RECOGNITION

Ill Health Causes Professor of English Literature and Dean of College to Withdraw from Present Duties-Will Be Lecturer and Adviser

Dr. C. M. Brink, head of the department of English literature and dean of dled. the college, will retire from his present active duties next fall and will become professor of English literature emeritus and dean of the college emeritus. Doctor Brink requested because of impaired health to be relieved of his present work, and the titles of honor were voted to him by the board of administration in consideration of his



DR. C. M. BRINK

long and faithful services to the insti-

Dean Brink's new duties will comprise the delivery of lectures in English literature, advice to students, and supervision of the outside reading of students.

The departments of English literature and the English language are to be combined in one department known as the department of English, which will include the teachers now connected with both departments.

DEAN IS ABLE SCHOLAR

Doctor Brink is one of the most community soon. scholarly and most highly respected members of the college faculty. He is a graduate of the University of Rochester, from which he holds bachelor's and master's degrees. He is a graduate also of Rochester Theological seminary and for some years was engaged in the active Baptistministry. He frequently now is called upon for special sermons.

Dean Brink's degree of doctor of philosophy is from New York university, which awarded it to him with highest honors in scholarship. He formerly taught in Kalamazoo college and Brown university. He has been a professor in the agricultural college for 14 years. He was dean of science from 1908 to 1909, since which time he has been dean of the college. He is the author of "Making an Oration," a highly commended textbook in oratory. To this field Dean Brink has given special attention.

Doctor Brink's intellectual qualities and personality, as well as his interest in community affairs, have made him popular and respected in Manhattan as well as the college.

KANSAS FARMERS WILL SWAT ROOSTER LATE THIS MONTH

Plan Urged by College Specialist Will Save Loss on Eggs

"Swat the rooster" will be the slogan in Kansas May 22 to 27.

"All male birds should be removed from the flocks at that time in order to interest in this work.

save heavy summer loss caused by incubation of fertile eggs, "declares Ross M. Sherwood, poultry specialist, division of extension, Kansas State Agricultural college. "If this is done it will mean thousands of dollars in the hands of the poultry raisers of the state. In fact merchants who made the question a study have found the loss through incubation to be 36 cents for every dollar's worth of eggs han-

"Rooster week offers an excellent chance for coöperation of merchants and farmers. Several dealers have already promised to pay a premium to every farmer who will agree to sell every rooster. If some dealers in every community would offer a like inducement it would mean increased profits through the sale of eggs in the hot weather."

BUREAU AND AGENT AID IN PROFITABLE FARMING

F. P. Lane Shows Manifold Activities in Weekly Report for Harvey County

How a farm bureau and a county agent work to bring about more profitable farming in a community is illustrated by the weekly report of F. P. Lane, county agent of Harvey county.

Mr. Lane says: "Monday and Tuesday, George O. Greene, specialist in horticulture in the extension division, was with me and helped in starting orchard spraying demonstrations. Sixteen farmers were present in one orchard and 18 in another. At least a dozen men in the vicinity of these orchards expect to spray this year for the first time.

"Tuesday night a meeting of the farm bureau members of Richland township was held. The plans of work for the year were explained in detail that township was gone over fully.

"Wednesday night I went to a farm on invitation to test milk. The farmer had invited all of his neighbors and of cream, skimmed milk, and whole easy if one starts in time. milk and I was busy from 7 until 11 o'clock explaining and demonstrating will give special attention this year to how to make the different tests. Ten farmers and their wives and all the localities and report unknown or children were present. Another dem- troublesome weeds to the state botonstration is planned for the same anist for identification and for infor-

"Friday night we had a meeting of the farm bureau members and others ination and identification, enough of in Lake township. The evening was spent in explaining the work that the characteristic leaves and the flowers farm bureau is undertaking this year or seeds. The latter are indispensable and in advising with memhers how to in many, if not most, cases for cormake the bureau work more efficient. Twenty-five were present.

"Four of the banks in the county dairy cows. One banker agreed to furnish \$1,000. The great trouble now is to find good cows."

MEMBERS OF GRANGES ARE

Enrolment Has Reached 2,300—Much In terest Among Men and Women

Many granges and other organizations of farmers are taking advantage of the reading courses in agriculture and home economics offered by the department of home study service, division of extension, Kansas State

Agricultural college. Enrolment in the reading courses has reached 2,300 and in addition to this 1,200 persons have enlisted for extension and credit courses, making an enrolment for the year of 3,500.

Fair Hope grange, near Gridley, has an enrolment of 35 men who are taking the courses on humus and on breeds of dairy cattle, and 24 women who are taking courses on the house fly, and lems are constantly arising with reon butter making. Membership in the grange has increased because of the

WIPE OUT WEED WASTE

STATEWIDE SWATTING CAMPAIGN IS ADVOCATED FOR KANSAS

Begin Now, Is Advice of H. F. Roberts-County Agents Are Urged to Give Attention to Problem of Troublesome Plant Eradication

A statewide weed swatting campaign is advocated for Kansas farmers and gardeners. Billions of weed seeds are in the fields as a result of the luxuriant 1915 crop of vegetation. Weeds that have already made a start should be exterminated at once.

"Begin the campaign against weeds now," advises H. F. Roberts, professor of botany in the Kansas State Agricultural college. "Early and frequent cultivation will kill weeds by

"Rest the overgrazed pastures and let the native grasses come back and crowd out the ironweed, wild verbena, horsebur, snow-on-the-mountain, wild croton, poverty grass, drop-seed grass, and other pasture weeds. Salt the bindweed, whenever it appears in a new locality, with an application of common crude salt applied at the rate of 12 tons to the acre. Have alfalfa seed tested at the seed laboratory of the station, to find what weed seeds are in it.

"There is no seed law to protect the farmers, so the farmers will have to protect themselves. If Sudan grass seed is planted, be certain that the sources insure its being free from Johnson grass seed. The seeds of the two species can scarcely be distinguished from each other.

WEEDS WASTE TONS OF WATER

"Weeds waste tons of water that should go into growing crops. It takes more water to make a ton of pigweeds or Russian thistles, than to and the work of the farm bureau in make a ton of sorghum. Sunflowers will cost an acre of Kansas land, 13,-000 barrels of water a year, or enough to irrigate an acre of alfalfa a whole summer. It pays better to raise crops they came bringing with them samples than to raise weeds, and it is just as

> "It is hoped that the county agents the weed problem in their respective mation as to means of eradication.

"When weeds are sent in for examthe plant should be sent to show the rect identification. Seedlings should not be sent. Specimens should be forwarded in as fresh condition as possiare furnishing money to boys to buy ble, wrapped in damp paper, tied, rewrapped in strong dry wrapping paper or newspaper, tagged with the name of the sender and his address, plainly written, and mailed, parcel post, to the department of botany, TAKING READING COURSES Kansas State Agricultural college."

Despite the extensive literature on the subject of weeds, a vast amount of definite information on their life habits is needed, points out Professor Roberts. Nearly every experiment station issues a weed annual and the weed books by various authors are increasing in number.

STUDY THE WEED PROBLEM

More thorough work in weed biology is needed. It would pay the state of Kansas, for example, to employ a man to devote his entire time for the next five years at least exclusively to a study of the weed question in the field, in the opinion of this authority. In addition to the pernicious new weeds that are constantly coming in and invading fields, new weed probgard to native weeds, the habits of which have never been thoroughly investigated.

Sometimes native plants that have hitherto attracted little attention, suddenly become noxious weeds on account of special conditions. This was notably the case in the drouth of 1913.

During that year a native herbaceous prairie plant growing in dry soil from Kansas to Texas, known as eryngo, although hitherto unknown as a weed, became in certain localities temporarily a noxious and vicious weed. On one farm alone, near Wichita, it caused \$1,000 worth of damage.

In the same year, a little, narrow leaved, native annual plant, the western horse-weed, swarmed over the pastures and alarmed the farmers, who thought it a new introduction. It had always been with them but had been held in check, in years of normal rainfall, by the other prairie plants.

A native plant of the plains, fog fruit, because of its underground root system, has become in certain places in west central Kansas, a pernicious weed of gardens, vineyards, and orchards. The western ragweed, an ordinary prairie plant, often becomes a nuisance in cultivated fields because of its propagation by means of horizontal roots.

BINDWEED IS RAMPANT PEST

Among introduced weeds, the bindweed is common but not dangerous in Europe and the eastern states, where it is held in check by the growth of competing vegetation. In the dry, western country, though, it is a rampant pest-the most dangerous and the most nearly ineradicable weed merely because its deep ranging root system enables it to collect the moisture that should rightly go to the growing crops. Spreading by means of its underground system more extensively than by its seeds, it advances steadily and never retreats.

A more complete knowledge of the range and spread of introduced weeds is seriously needed. At present, a new weed is usually allowed to spread sufficiently to become troublesome before it is reported to the state botanist.

There are approximately 800 kinds of weeds in the United States. Fully 400 may be called common weeds, and about 200 range from merely troublesome nuisances to dangerous pests. Strange to say, most of the worst weed pests in the United States, have come from Europe and Asia. It is sufficient to mention Canada thistle, Russian thistle, field sow thistle, field bindweed, Johnson grass-sub-tropical-quack grass, crab grass, foxtail, cheat, buckhorn, most of the wild mustards, the cockles, catchflies, and campions, mullein, burdock, pigweed, lamb's quarters, and wild carrot. These and scores of other weeds have come into the United States in seed shipments or in ballast and have made their way steadily inland.

The botanist, says Professor Roberts, finds weeds interesting because they generally are successful types of plants, and it is of scientific value to find out how and why they are so successful. The scientific knowledge thus gained lies at the basis of the study of weed eradication.

IN SOUTHWESTERN KANSAS WITH BIRD DOG AND GUN

Walter Burr of College on an Extensive Lecture Tour

Walter Burr, director of the department of rural service in the Kansas State Agricultural college, has started out on a lecture tour of the extreme southwestern part of the state on which he has taken a gun and a dog and expects to live in true camp style. His schedule calls for two or three lectures a day.

Mr. Burr is traveling in an automobile. He lived in the Rocky mounwill give him a taste of what he calls real life.

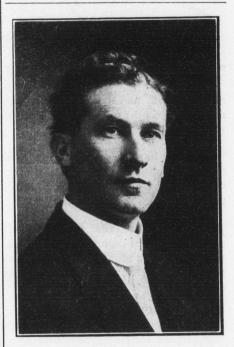
LEARN TO TEST FLOUR

MILLERS, BAKERS, AND OTHERS TO ATTEND SHORT COURSE

Lectures, Discussions, and Laboratory Practice Will Be Offered-Work Has Drawn Good Attendance in Three Preceding Years

The fourth annual short course in wheat and flour testing will be offered by the department of milling industry of the Kansas State Agricultural college May 15 to 27, inclusive, according to announcement by L. A. Fitz, head of the department. It will be of special interest to wheat buyers, millers, bakers, and flour salesmen.

The course will consist of a series of lectures with discussions and labora-



PROF. L. A. FITZ

tory practice. Instructions will be given in methods for determining absorbtion, gluten, total protein, gliadin, moisture, ash, and acidity. Those in attendance will be given opportunity for as much laboratory practice as time will permit. Previous training in chemistry is desirable but will not

FURNISH FLOUR FOR TESTS

Those planning to attend are requested to notify the department as soon as possible. It is also desired that each mill representative supply a 10 pound sample of his flour for laboratory tests, also a one quart sample of the blend of wheat from which the flour is made.

There has been an encouraging at tendance at each of the three preceding short courses. The Kansas State Agricultural college is one of the few institutions that offer work in milling, and millers have come here from several adjacent states, as well as Kansas, to take the courses.

QUEEN OF THE MAY WILL BE CHOSEN BY STUDENTS

Popular Vote Will Determine What Pretty Senior Gets Prized Honor

Her majesty, the queen of the May, at the Kansas State Agricultural college will be chosen by popular vote from among four senior girls-Miss Ruth Adams of Manhattan, Miss Juanita Reynolds of Canton, Miss Mary Polson of Fredonia, and Miss Wilma Burtis of Fredonia. The candidates were selected by a process of elimination from nine of the most beautiful senior girls at the class meeting held by the graduating class Tuesday.

The election will take place the latter part of this week. The queen's attendants will be chosen from four candidates nominated from each of the other

In order to qualify for a passing grade the students who are taking rhetoric under Don Burke, instructor tains as a boy, and says that this trip in English, must be able to spell 98 per cent of all the words studied in the course.

Published weekly during the college year by the Karas State Agricultural College. Manhattan, Kan.

H. J. WATERS, PRESIDENT Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor ADA RICE, '95, M. S. '12..... Alumni Editor

Except for contributions from officers of the college and members of the faculty, the articles in The Kansas Industrialist are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, MAY 6, 1916

There is at least one thing that's standardized, and that's the voice the average person uses when he tries to read in public.

Very few barbers are likely to follow the example set by the Kansas Cityan who slashed a customer-they couldn't with the razors they ordinarily use.

All the politicians and political newspapers are sounding keynotes, and a brief examination suggests that there will be a most inharmonious campaign.

A TRUE CHRISTIAN SCHOLAR

The retirement of Dr. Clark Mills Brink from active teaching duties in the college will be viewed with regret by the many alumni of the institution, whose intellectual development and moral ideals he has been a potent factor in molding. It will be received with none the less regret on the campus and in the town of Manhattan. All will join in the hope, however, that relief from his present active duties will restore him to health.

Doctor Brink has rendered long and valuable services to moral and religious as well as purely intellectual education. As a successful minister of the gospel, as a scholarly and appreciative teacher, and as a cultivated gentleman, he has influenced countless men and women who are now occupying prominent places in the world and are carrying the effects of his influence plants. to others. In the eastern institutions with which he was connected before coming west, Doctor Brink was regarded as one of the ablest of literary critics, and in the west he has had the same reputation. Everywhere that he has gone his influence has been recognized in the direction of high conceptions of art and of life.

In his new duties, less heavy than his present ones, Dean Brink will exert the same sort of influence, while the students will have an even greater opportunity for intimate association with him.

AGRICULTURAL MIRACLES

If you read of agricultural miracles, doubt them-particularly if the miracle workers agree to let you in on their methods for a consideration.

The United States department of agriculture has just exposed the miracle wheat fake, according to which in its biggest development the whole of the arid west was to be converted into a field of miracle wheat and spineless bad, because they can hardly be concactus in fulfilment of an alleged biblical prophecy. Another story told in connection with this wheat is that it was derived from seed found in the coffin of an Egyptian mummy 3,000 or

4,000 years old. The department of agriculture naturally does not attempt to pass on the become less formidable, and may even ecy. It points out merely that seed of at all. Hence we have our "worst" wheat stored under the most favorable weeds for each particular locality, and man.

circumstances will not retain vitality more than a few years and that actual yields from so-called miracle wheats in scientific tests show no miraculous properties whatsoever.

It is no disparagement of the miraculous to say that the miracles of agriculture are likely to be found in the application of modern science and modern business to agriculture. It is these things-quite as much the gift of divinity as is supernatural powerwhich will cause the desert to bloom as the rose and the trees of the field and the flocks of the husbandman to rejoice before the Lord.

RESTRICTING THE CROOK

The people in New York and to some extent in other places are beginning to demand a censorship on public discussions in schoolhouses, all because of a story in one or more of the New York papers asserting that a speaker in a schoolhouse address made the exclamation "To hell with the flag!" The speaker had used the words but had quoted them as used by a police officer in Pennsylvania, and some empty-headed reporter, more intent on interest than honesty, published the objectionable words as the sentiment of the speaker.

This story has done damage to the speaker involved and to the cause of free speech. More far-reaching, however, is the damage which all stories of this character do to another public institution-the newspaper. Every such story, when exposed, lowers by so much the people's confidence in journalism.

If the newspaper is to hold a proper measure of public respect it must devise some means of restricting the activities of the crooked and the irresponsible newspaper man. Just how this may be done is not yet evident, but it is a problem considering which it is well for all who are interested in the profession of journalism to think

KNOW WEED HABITS

Farming is to a considerable degree a fight with weeds. For example, all the work of preparing the groundplowing, harrowing, etc., and of cultivating the crop is not only to put the soil in condition to yield plant food readily, but to destroy the growth of plants that would consume plant food needed by the crop. Wherever there are weeds in the fields there can always be expected correspondingly lighter crops. The weeds take plant food and moisture from the soil which should be conserved for the crops, and in many other ways they are detrimental. They destroy the beauty of country, city, village, and home. Weeds also harbor injurious insects and fungous and bacterial diseases of cultivated

It must be admitted that weeds on farm are a blessing in so far as they compel us to give tillage to a crop, snd the stirring of a naturally compact soil is essential to most cultivated crops. The ground must be stirred to admit air at times, and to hold moisture at other times, and just so far as the presence of young weeds stir us up to cultivation, just so far they do good. We can admit even more in the favor of weeds. The soil needs a cov ering, and it needs humus, and a piece of ground that is not given a good stand of good plants is benefited by its ability to cover itself with a good stand of poorer plants-poorer in their power to enrich the land, but valuable because any rotting vegetation enriches.

But in the case of the man who is willing to cultivate when land needs stirring, and who is willing to sow a good seed in a good seedbed when lands need a sod, weeds become a nuisance of a pronounced type. Some kinds of weeds are more than strictly trolled at all. In the fight for existence in this world these varieties have proved to be so hardy and strenuous that in many sections where the conditions favor them peculiarly no other vegetation can crowd them out on even terms. Outside of these sections they applicability of the scriptural proph- not be able to maintain any existence

those of one section may be entirely harmless when introduced into another district.

Every farmer ought to have a well defined plan for the extermination of weeds. Even with all his efforts it will almost be impossible to rid a farm entirely of weeds, for the seeds are carried by the winds and birds and scattered broadcast over the land. First of all, in order to fight weeds to best advantage they should be studied and their habits understood. When one has an enemy of any kind it is always desirable to learn its name and as much about it as possible, so as to be able to take advantage of any weak

A QUARTER CENTURY AGO Items from The Industrialist of May 9, 1891

By recent action of the faculty, autograph copies of graduation theses will find a place in the library.

Professor Walters lectured last evening in the Salina High School course on "Industrial Education."

Mr. Breese visited McPherson and Great Bend this week in the interest of the beet sugar experiments.

Plans for the iron shop are completed, and bids for the work will be received until next Tuesday noon.

The dinner on commencement day will be furnished by the ladies of the

Country and Town

Marcus Terentius Varro, B. C. about 50

YOW, if it is admitted that Thebes was founded before the deluge, which is known by Ogyges' name, its age is not more than about 2,100 years: and if that period is compared with the lapse of time since men began to cultivate the land and to live in huts and hovels, knowing naught of city walls and gates, it is evident that life in the country preceded life in town by a tale of immemorial years. Nor is this to be wondered at since "God made the country and man made the town." While the tradition is that all the arts were invented in Greece within a thousand years, there never was a time when the earth could not be cultivated. And, as life in the country is the more ancient, so it is the better life; for it was not without good reason that our ancestors were wont to plant colonies of citizens in the country, because by them they were both fed in times of peace and protected in times of war: nor was it without significance that they called both the Earth and Ceres by the common name of Mother and esteemed that those who worshipped her lead a life at once pious and useful and were the sole representatives left on earth of the race of Saturn. A proof of this is that the mysteries peculiar to the cult of Ceres were called Initia, the very name indicating that they related to the beginning of things.

A further proof that country life was earlier than that of town is found in the name of the town of Thebes, which was bestowed from the character of its situation rather than from the name of its founder: for in the ancient language, and among the Æolians who had their origin in Bœotia, a small hill is called "tebas" without the aspirate; and in the Sabine country, where Pelasgians from Greece settled, they still have the same locution: witness that hill called Tebae which stands in the Sabine country on the Via Salaria not far from the milestone of Reate. At first agriculture was conducted on so small a scale that it had little distinction, since those who followed it, being sprung from shepherds, at once sowed their corn and pastured their flocks on the same land, but as later this art grew in importance the husbandry of live stock was separated, and it befell that some men were called farmers and others shepherds.

point. Just so with weeds. They are Congregational church, theirs being the farmer's enemies; and the varieties the first as well as the only applicathat are distinctly troublesome and tion received. costly in one's farming should be THE INDUSTRIALIST is under obliknown thoroughly so that advantage gations to Mr. S. S. Green, secretary may be taken of their characteristics in of the Beatrice Chautauqua assembly, combating them. Farmer and Stock-

BLOOD TELLS

We were reminded of the old saying, 'blood tells'' the other day as we read an account by the United States forest the printers the last of the copy and reserve of two large droves of cattle raised on one of the federal forest reserves. In one drove registered bulls had been used for years and care had been exercised in weeding out unprofitable cows so that the whole herd had been greatly improved. The other herd belonged to a man who used scrub or grade bulls, and paid very little attention to the selection of the females. When the regular quota of steers were sold last fall those from the good herd averaged \$20 more per head than those from the poor herdall because the well bred steers had made better use of their feed from birth till block and showed a much higher dressing percentage besides. Both herds had received the same feed, care and attention, but one yeilded perhaps twice as much net profit as the other. If good breeding will add that much to the value of range cattle for slaughter, how much more will it add to the value of cattle that are finished on highpriced grain feed?-Farmer and Stock-

for a complimentary pass to the next gathering, June 23 to July 6.

K. C. Davis, fourth-year student and business manager of the Symposium company, went down to Topeka last Saturday and turned over to all the cuts for their book.

The wall cases in the entomological cabinet are to be remodeled for better display of their contents, and new cases for the economic collections of insects are to be constructed. D. W. Bradley and C. C. Davis are employed upon the work.

A coyote was killed Saturday evening last in the hitching yard west of mechanics' hall, having been driven there wounded by a shot from the rifle of a young man who was crossing the pasture. It is reported that over 40 have been brought to the county clerk for the bounty during the past month.

Professor Walters has received a letter from a student at the Federal Polytechnic school at Zurich, Switzerland, who intends to take a postgraduate course at the college during the next year. The young man writes that the professors in the universities of central Europe are encouraging the students to perfect their knowledge of English and special sciences in America instead of England.

SUNSET

Emily Dickinson

Where ships of purple gently toss On seas of daffodil, Fantastic sailors mingle, And then-the wharf is still.

SUNFLOWERS

Let's see, who was it that old Father Time married?

The uglier a girl is, the more ribbons she piles on her hat.

We move that "wine, women, and song" be amended to read "gasoline, chickens, and syncopation."

You will probably waste all the time you spend in trying to convince a jelly fish that he needs a backbone.

All candidates for empty honors will please take note that the "favorite son" market is glutted just at present.

We firmly believe that the world is growing better, for we haven't heard 'the latest Ford joke" for two or three weeks.

The trouble with being serious is that some people will suspect that you are only stupid. And nine times out of ten, they will be right about it.

THE REASON WHY Man wants but little here below, Its just as well, I guess; His wife will take it anyhow For picture shows and dress.

Vice-President Marshall has been given season passes to the American league ball games at Washington. We always did think that a vice-president ought to have something.

Billy Sunday highly commends the view from the sleeping porch of the Wallace home in Kansas City. For ourselves, we can't see that an outbound view in connection with a sleeping porch adds much.

Someone from within the "Hell Box" of the Kansas State Collegian complains that we cannot indite jingles to other girls than Lucile because Lucile rimes so readily. What about Eloise, Geraldine, Marguerite, Elise, Lizzie, Grace, Anne, and Sue?

WANTED-INFORMATION

Dear Pancho:

Kindly let us know whether you are dead or not. If so, do you mean it? We have been somewhat perturbed recently by conflicting press reports in regard to your arm and your whereabouts. They are keeping the wires

Hoping you are the same, we are Expectantly yours, THE GRINGOES.

SYSTEMATIZING BUSINESS

Only one in 10 of American manufacturers and merchants is aware of the actual cost of their products. Half of them have no means of knowing what their stuff costs. The federal trade commission is authority for this statement. It shows that business men are no better than farmers in this matter of cost accounting. All business, including agriculture, has got to be put on a more systematic and economic basis. Records must be kept to show cost of production, of selling and the resulting profit or loss. Should a federal income tax be imposed upon all incomes above \$500, it would absolutely compel almost everyone to keep true records. Simple and uniform methods of computing farm costs are greatly needed. If the federal trade commission can help to work out such a system, it will be warmly welcomed by farmers everywhere. This new commission, by the way, has broad powers and large opportunities for usefulness. Its report on the gasoline proposition is of the deepest interest-a thorough piece of work. Any of our readers who have reason to believe that they are subject to injustice in the purchase of their supplies or in the sale of their products, may yet find relief at the hands of the federal trade commission. -Orange Judd Farmer.

Miss Mary Churchward, '15, has been elected to teach in Wichita next

Miss Edith Maxwell, '14, has been reëlected to teach in the McPherson high school at a substantial increase in salary.

Miss Margaret W. Schultz, '13, has been elected to teach home economics in the Manhattan high school for the coming year.

A little daughter, born to Dr. John P. Schutt and Mrs. Winona (Miller) Schutt, '11, of Bremerton, Wash., lived but a few days.

Dr. J. H. Payne, '09, was the guest of Dr. T. P. Haslam, '08, this week. Doctor Payne is practicing veterinary medicine at Marysville.

Miss Esther Zeininger, '15, who is teaching home economics in the high school at Lansing, will teach the same subject in the Frankfort high school in the coming year.

Miss Helen Halm, '08, of the department of education, read a paper on "The Development of Student Initiative" before the faculty of the division of general science Tuesday.

L. B. Mickel, '10, is Kansas City manager of the United Press, and has charge of the service to several hundred papers in this part of the country. That he gives the college the "play" it deserves in the news, is certain.

Miss Blanche Vanderlip, '10, has resigned her position in the Mission school of Santa Fe, N. M., and returned to her home in Manhattan. The change was made necessary on account of the recent death of Miss Vanderlip's father.

H. N. Vinall, '03, and Roland Mc-Kee, '00, are the joint authors of a recent bulletin of the United States Department of Agriculture, on "Moisture Content and Shrinkage of Forage and the Relation of these Factors to the Accuracy of Experimental Data.'

Miss Julia Margaret Baker, '15, of Manhattan, who is teaching English in the Lewiston (Ida.) high school, writes that she is enjoying her work and that the climate of Lewiston is remarkable. She says, "I am very well, so well that a day's walk, or climb, of 14 miles does not tire me." Miss Baker will spend her summer vacation in Manhattan.

BIRTHS

Born, to Stanley Combs, '12, and Greensboro, N. C., on April 6, a son, Stanley Elbert.

Born to Mr. H. Ray Rutherford and Mrs. Katherine (Stewart) Rutherford, former student, at Anthony, on April 17, a son, Duane Oral.

MARRIAGES

BAKER-LINN

Mr. Charles Linn and Miss Nellie M. Baker, '12, were married in Denver, April 15. Their home will be in Gunnison, Colo.

VANDERLIP-YOUNG

Miss Verna Vanderlip, '14, and Mr. George Young were married at Manhattan, May 2. After a short wedding trip they will be at home on a farm near Woodston.

FEED ALFALFA HAY TO

Allow Plant to Cone to Full Bloom Before Cutting It—Oats Not Essential, Says Thompson

Alfalfa hay, cut at the right stage of growth and properly cured and fed, is one of the best feeds produced in Kansas for all classes of horses, according to C. P. Thompson, specialist in animal husbandry, division of college extension, Kansas State Agricultural

"Allow the alfalfa to come to full assistant in poultry husbandry.

bloom before cutting it for this purpose, and let it become well cured before stacking it," advises Mr. Thompson. "Do not feed too much. Eight or 10 pounds daily for 1,000 pounds live weight is sufficient for work horses. Feed most of the hay at night. Never feed too much roughage of any kind at noon to horses that are working, and never feed musty or mouldy hay.

"If alfalfa hay is used for part or all of the roughage, 80 per cent corn and 20 per cent bran is a good combination. Where alfalfa hay is used, the bran is added to furnish bulk, especially if the corn is to be ground. From 8.5 to 10 pounds of grain a day for each 1,000 pounds of live weight is sufficient to keep a work horse in good condition.

"Oats, while one of the best grains for both colts and work horses, are not absolutely necessary for either, as is commonly supposed. Where oats can be grown successfully or bought cheaply, they can be used to advantage, but in many sections of the state they cannot be raised with any degree of certainty, and in such localities the price is generally prohibitive. A good substitute for oats for work horses is corn 70 per cent, bran 25 per cent, and oil meal 5 per cent, fed with prairie hay or other roughage low in protein such as cane hay and oat hay."

RAISING SCRUB HORSES DOES NOT PAY FARMER

Average Kansas Horse Is Not Worth Cost of Raising, Says Doctor McCampbell

The average Kansas horse is not worth the cost of raising it, according to Dr. C. W. McCampbell, assistant professor in animal husbandry in the Kansas State Agricultural college.

"This is due," says Doctor Mc-Campbell, "to the fact that too many farmers are breeding their mares to grade and scrub stallions that are inferior in size and quality. This has resulted in the production of small, poorly shaped horses which are inefficient as work animals.

"Statistics taken January 1, 1916, showed that Kansas had 1,063,356 horses, valued at \$116,969,160, or \$110 per head. This \$110 would hardly cover the cost of the feed alone used to raise a horse to the age of five years, and the only revenue derived from the horse is the inefficient work it performs."

The remedy for this problem, according to Doctor McCampbell, is to breed the mare to good purebred draft stallions. If no such stallion is available, do not breed at all, is his advice. One can buy scrub horses for less money than he can raise them, and he Mrs. Susan (Wingfield) Combs, '12, at does not have to wait five years for them either.

KNAPP IS SUPERINTENDENT OF GARDEN CITY STATION

Has Been in Charge Since Sewell Left-Other Changes on College Staff

George S. Knapp has been made superintendent of the Garden City Branch Experiment station. Mr. Knapp is a graduate of the college, and since the resignation of Superintendent Malcolm Sewell has been acting superintendent of the station. He is doing valuable work in irrigation and other investigations.

R. K. Bonnett is to become instructor in soils, taking the place of Page Bledsoe, who has resigned. Mr. Bonnett is a graduate of the college and receives a master's degree this gous galls that are not injurious to the spring from the University of Wis- apple tree." consin.

Raymond G. Taylor, assistant professor of history, has been given a leave of absence for a year to con-ALL KINDS OF HORSES duct research in agricultural and industrial history in Yale and Harvard universities. Mr. Taylor holds degrees from the University of Kansas and the University of Chicago.

Miss Minnie Sequist of Eskridge, a student in Stout university and a graduate of the state normal school, will become specialist in home economics in the division of extension next September.

T. S. Townsley, a graduate of Purdue university, has been appointed

DON'T CUT DOWN CEDARS

DANGEROUS RUST MAY BE PRE-VENTED BY OTHER MEANS

Following College Spray Schedule Will Make Damage from Fungous Disease Negligible-Certain Varieties of Apples Are Resistant

It isn't necessary to cut down the red cedar trees in Kansas in order to avoid cedar apple rust. If the general spray schedule recommended by the Kansas State Agricultural college is carefully followed, the damage to the apple crop from this fungous disease will be a negligible factor, in the opinion of L. E. Melchers, instructor in plant pathology.

"At this time of year the cedar gall is a hard brown mass of fungous tissues about the size of a small walnut," says Mr. Melchers. "The cedar apple rust belongs to a class of fungous plant diseases called rusts, which require two hosts upon which to complete the life cycle. In the case of the cedar apple rust it is the red cedar and the apple tree.

"Gelatinous masses of tissue grow out and project from the cedar galls in the spring when the warm rains come, and from these masses spores are developed. These are noticeable at present on the cedar tree. The wind distributes the spores, and any that by chance get on an apple tree will cause an infection which produces a spotted condition of the foliage and a roughened pimple-like condition on the blossom end of the fruit.

REDUCES VALUE OF FRUIT

"In severe cases this disease may cause premature defoliation but does not cause the direct rotting of the fruit. It merely produces a blemish which reduces the market value of the fruit.

"Three other methods are advised in some states for controlling the disease -cutting down the red cedars, choosing a place for the orchard that is not close to red cedars, and planting varieties of apples resistant to rust. The first method is not to be advised in Kansas, because the red cedar is far too valuable to be sacrificed and furthermore, this species of evergreen is not abundant enough to require such drastic control measures. The planting of the red cedar is being encouraged because it is one of the most important evergreens in Kansas and therefore holds a prominent place in the list of trees recommended by the department of forestry.

AUSTRIAN PINE FOR WINDBREAK

"When new orchards are planted, one should see that red cedars are not planted nearby. For a windbreak, plant the Austrian pine—it will serve the same purpose and is not affected by the cedar apple rust.

"Apples that are resistant to rust are winesap, yellow transparent, Grimes golden, and duchess. Other varieties state but which sometimes show slight susceptibility are York imperial, Jonathan, and wealthy.

"It is not generally known that the red cedar trees in Kansas are affected by two distinct species of fungous galls. Besides the one which alternates with the apple tree, there is one which alternates with the hawthorn tree. The cedar apple gall is considerably larger than the cedar hawthorn gall and so the two can be easily distinguished. From this it is apparent that a red cedar tree may have fun-

GIVE CHICKENS CARE IN BROODING PERIOD

They Are Either Made or Ruined at This Time, Says Poultry Authority

The brooding period is a critical time in the life of a chicken. The future flock is made or ruined at this time, asserts N. L. Harris, superintendent of the Kansas State Agricultural college poultry farm.

"The essential that should be kept in mind when brooding chicks is comfort," says Mr. Harris. "Do not crowd the chicks. The estimated ca- bred to his stallion, and cannot colpacity of the brooders is almost all lect service fees from his patrons."

ways too high. It is a safe rule to reduce the given capacity from onefourth to one-third to get the best re-

"The chief requisite of a brooder is that it be well built and well ventilated. There are several good types of brooders extensively used and recommended for the various sizes of flocks. The one commonly used is the adaptable or the universal. This is a lampheated hover which may be attached to any sort of shelter, a brooding device especially adapted for farm pur-

"A newer brooder type that has proved a success is the portable hover. It is fireproof and convenient. It may be picked up and placed where desired as the heating device is at tached to the hover.

"Where a flock of 200 to 250 chickens is hatched at one time, the gasoline brooder is well adapted for the colony house system of brooding. Another brooder of this size is the coal heater. This brooder is efficient and economical. It may be used in almost any sort of a building providing it is free from drafts, yet well venti-

lated with plenty of sunshine. "No matter what system may be used, the operator must ever be on the lookout for disarrangements. The whole question of success depends largely on the care exercised in operation."

GOOD BULLETIN BOARD IS ASSET TO MODERN FARMER

Name of the Farm Should Be Placed on **Board in Plain Letters**

That a farm bulletin board placed in a prominent place bordering a much traveled road may be made a valuable advertising medium for the farmer, is the opinion of H. W. Davis, associate professor of the English language in the Kansas State Agricultural college.

Tourists passing through the country, and pleasure riders in motor cars would be attracted by the board and possibly would profit by the information set forth, points out Professor Davis. Dairy and poultry products could be advertised, fruit in season, garden truck, and all other products of the farm that depend on the small market also could be listed here.

Second hand implements, milk cows. young calves, eggs for hatching, seed wheat, oats, corn, or potatoes-all could be advertised on this board. Often one's own neighbors desire the very thing that might be had on the next farm.

An evening ride in an automobile is a pleasant diversion for the city folk, and a dressed chicken or two dozen eggs from a farmer's poultry yard would be reason enough for a spin into the country on a summer evening, suggests Professor Davis.

The sign board should be made of be easily read from the road. The which are commercially grown in this name of the farm should be put at the top of the board in plain letters, with the proprietor's name just under it.

ATTENTION OF FARMERS IS CALLED TO IMPORTANT LAW

Secretary of Registry Board Would Save Horse Breeders Embarrassment

Attention of Kansas horse breeders is called by Dr. C. W. McCampbell, secretary of the live stock registry board, to the law now in force which gives stallion owners a lien on mares from the time they are bred.

"This law," points out Doctor Mc-Campbell, "provides, that if any owner sells, trades, or removes from his county any mare that has been bred, without first settling for the service lays himself liable to arrest and a fine of from \$25 to \$100 and costs. The embarrassment of arrest may be avoided by careful observance of the provisions of this law."

"Mare owners may be interested in the fact that all stallions standing for public service must have a license for the current year and if a stallion owner is standing a stallion without a license, he has no lien on the mares

USE NO SCROLL WORK

FLOWER BEDS SHOULD BE SIMPLE IN DESIGN

Timely Suggestions on Planning the Garden by Professor Ahearn-It Is Not Too Late to Plant Flower Seeds

In laying out flower beds in a small lawn, don't, for goodness sake, attempt any scroll work or fancy figures, advises M. F. Ahearn, professor of landscape gardening in the Kansas State Agricultural college.

"A simple design beats a complex one every time," says Professor Ahearn. "A flower bed with sweet alyssum and lobelia in the center and cannas and castor beans on the outside may have the proper ingredients but is somewhat lacking in taste.

"Ornamental flower beds, if properly handled, give the lawn an appearance of life and add materially to the interest of the landscape.

"Some of the simpler forms of beds are the circle, the triangle, the square, and the bed with irregular outline, any of which may easily be made. Their future beauty depends entirely on good taste in selecting plants to fill them.

USE JUDGMENT IN PLANNING

"One word of caution, however. Do not cut the lawn to pieces with too many flower beds. A few beds, well arranged, will be a source of delight and satisfaction, but it is necessary to use sound judgment in planning them.

"Flower beds in Kansas should be level with, or a little below, the surrounding ground, in order to catch all the moisture possible. A layer of well rotted manure will be found bene-

"Try to learn something in advance concerning the height each plant is to grow, the color of its blooms, and the amount of pruning it well stand."

The flower garden, says this authority, should be large enough to accommodate all the best flowering plants that are not suitable for lawn plant-

This garden should be located at the rear of the house or greenhouse and may be laid out in rows or beds or both. Here is the place for experimentation and study, and yet it may be so arranged as to give enjoyment to those who admire the beautiful.

Flowering plants that gave a long period of growth before blooming, such as the China asters, should be relegated to the flower garden. Roses, tuberoses, zinnias, flags, peonies, hardy phlox, hardy asters, many of the ornamental grasses, some shrubs, and several varieties of bulbs furnish splendid material for building up the flower garden.

The size of the garden depends durable material and so placed as to largely upon the amount of ground available for such purposes.

DRAW A GARDEN PLAN

"After deciding upon the location and size, draw a plan of the garden, putting in walks, beds, and the names and number of the plants," advises Professor Ahearn. "Adhere strictly to this plan unless there is some important reason for making a change.

"Several authorities suggest the laying out of the flower garden along geometrical lines. This increases the work and adds an artificial appearance. If flower beds are desired, make them either square or rectangular, curved or circular.

"Thorough preparation of the soil is an absolute necessity. Dig deeply, at least two feet, and enrich with either barnyard manure or commercial fertifee or without securing from the owner lizer. If the soil is thin and poor, rewritten consent for sale or removal, move it to the depth of two feet and fill with rich, porous loam."

The locations of the different plants depend upon the needs of the varieties. points out Professor Ahearn. Many plants succeed well in shaded spots, while others require plenty of sunlight.

A mixed bed is not as effective as a mass of one kind or color. For the best success with the home garden, it is necessary to have plenty of water. Water pipes, with the addition of 50 to 100 feet of rubber hose, will lessen the chances of failure 25 per cent.

YOUNG MAN, EARN A FARM IN KANSAS, SAYS JARDINE

PRACTICE MODERN AGRICULTURAL METHODS AND PRODUCE RE-TURN ON HIGH PRICED LAND, URGES KANSAS DEAN-INCREASING WHEAT YIELD

Kansas young men should own and | operate the 36 per cent of the total operating his farm in much the same number of farms in the state that are fashion followed 20 years ago, except now handled by tenants. These young men can accomplish this end if they will practice the most modern farming methods, according to W. M. Jardine, dean of agriculture in the Kansas creased yields, because he owns his State Agricultural college and direc- farm and it cost him little. If he setor of the Kansas Agricultural Experiment station.

of the best farm practices in Kansas particularly in relation to the yield of wheat, the growing of which is one of the chief industries of the state.

'Wheat growing,' says Dean Jardine, "has been and will probably always continue to be one of the chief industries of Kansas. Eight to nine million acres is a large area to plant to one crop every year, but this is what the farmers of Kansas are doing in the case of wheat. We are extensive rather than intensive wheat farmers: that is to say, we operate large areas with big machinery and without very much detailed attention. We do not spend much time in figuring out suitable rotations to employ, how to build up the humus of the soil, and how to maintain soil fertility, all of which are essential in intensive farming. The extensiveness of our farming methods is emphasized by our low average acre yield.

LAND VALUES, NOT YIELDS, RISE

"During the past 15 years the farm lands of Kansas have advanced more than 100 per cent in value, while during the same period records show lit- crops brought from every section of tle if any increase in acre yield. Un- the world, to determine those best der the system of farming practiced suited to our conditions of soil and during the past 10 years and still in climate. Not only do the conditions use on the majority of farms, it is im- of Kansas affecting the growing of possible for a young man to buy a crops differ from those of other states, farm on borrowed capital at 6 to 8 per but they also vary widely in different cent interest and pay for the land from parts of the state. As a result of our the proceeds of the crop.

"While in the days gone by our fathers and grandfathers probably made money in extensive farming of every county of the state. It has been the virgin soils which they secured at through tests and experiments at these very little cost, conditions have changed. The same land today brings wheats have been developed and comfrom \$60 to \$150 an acre, and if han- mercialized and the varieties of wheat dled in the old fashioned way seldom now grown in Kansas are from pure can be made to produce yields that will return a profit on the investment, tributed by the experiment stations. to say nothing of providing a reasonable salary for its owner.

life-and it is these men who own the planting methods. It is right here majority of Kansas farms-will change that we believe we can help the young their methods now. A good many of farmers. At the Manhattan experithem are retiring to the city and turn- ment station during the last six years ing the management of their places over to tenants. According to the best information we have, some 36 per cent of our farms are being operated two to five bushels an acre more than by tenants. While this is the trend of the best wheat the best farmers in the agricultural conditions, we continue to produce in Kansas large numbers

of young men on whose shoulders rests the hope of Kansas agriculture. The majority of these young men, however, cannot become owners of farms in this state, except through inheritance, unless they put more intelligence into the business of farming than it is now receiving, because it is practically impossible for crops under the present system of farming to furnish money to pay 7 or 8 per cent interest on \$150 an acre land and leave anything to liquidate the principal.

REDUCE COST OF PRODUCTION

"Today the cost of producing a bushel of wheat on Kansas farms ranges from 40 to 60 cents. This is about the cost of producing wheat in Montana, the Dakotas, and Canada. In Kansas this cost can be reduced by readjusting the farming business through the production of a diversity of crops in rotation and the growing of live stock on the farm, thus allowing a better distribution of labor, the feeding of byproducts, and the upkeep of the fertility of the soil.

"While the average farmer today is that he is employing bigger machinery and is working less hard-which is a very good thing-he does not need to be particularly concerned about incures 3 or 4 per cent interest on his capital he has sufficient to care for Dean Jardine emphasizes the value himself and family comfortably. It is not for the welfare of this man that I am concerned. It is the young man, the prospective farmer, the farmer of the future, for whom I am concerned and whom I want to reach. Some day, and not in the far distant future, our boys will be the farmers of this state-at least they ought to be and will be if it is made half possible for them to be-and I want to try to show them that there is a way which if followed will enable them to become owners of land even at its present high value.

JOIN BUSINESS TO SCIENCE

"In every county of the state it is possible to point out progressive farmers, young and old, who are making money on high priced land by employing modern business methods in their farming operations together with scientific farm practices developed by our state experiment stations at Manhattan, Hays, Colby, Garden City, Dodge City, and Tribune. For the past 25 years we have been experimenting at one or more of these experiment stations with all kinds of work, we have almost reached the point where we can say positively what crops are best suited to grow in stations that our hard red winter seed of improved varieties first dis-

"We have reached the time when further increase in the yield of wheat "It is not very likely that many of must come through the planting of our farmers who are past the prime of better varieties and using improved we have developed new varieties of wheat that are now yielding and have vielded from the first year's test, from state are now growing.

OTHER CROPS WILL INCREASE

"If the yield of the wheat crop of the state can be so increased, the same can be done with corn, with the sorghums, and with alfalfa, and the station will develop this work as rapidly as it is possible to find the time, the help, and the money to carry on expensive investigations.

In their growth and development, plants are governed by the same fundamental laws as are animals. The same methods which are employed in improving live stock, and which are familiar to all of us, must be used with a breed of wheat, oats, barley, or any other crop. A man who owns a herd of purebred shorthorn cattle knows well that even though their blood be pure, no two of his animals are alike in every respect, and that if he maintains the high standard of his herd, to say nothing about improving it, each year he must select out for his future seed stock the best individuals.

"The same is true as to a strain of wheat. If, as I said, we have the best

Turkey and Kharkof hard red winter the young man who is trying to buy REPORTING AIDS HUMOR wheats, the next step is to see if we his farm on borrowed money and pay cannot find plants among our home seed that are superior to others and from these plants increase the seed and develop a new higher yielding strain. The purest field of wheat in Kansas is composed of individual plants no two of which are alike and it is the problem of the plant breeder to seek the highest yielding plants and propagate them and keep them pure until the seed can be increased sufficiently to put it into the hands of farmers. This is an expensive, tedious, exacting job and one which can be conducted only by experts with the financial support of the state and federal governments.

EXPERIMENTS TAKE MUCH TIME

"This is one of the lines of work in progress at our experiment stations. It requires seven or eight years to develop a new breed of wheat. This length of time is required because it is necessary to begin with a single looking heads of a plant are chosen. The seed from each of these heads is planted in a single row. The performance of each plant is carefully noted and records are kept on the various characters of the plants, such from wheat once in a while, and plant as hardiness, stiffness of straw-to see if the variety will stand up and not lodge-resistance to disease, earliness of maturity, and so on, as well as on yield. At the end of each growing season the seed from the best yielding rows is saved and kept pure, and milling and baking tests are made to determine the value of the various varieties for bread making. Before all of these points can be determined employment every working day in the with certainty, tests must be made for six to eight years.

"After the best varieties in the headrow test have been determined, seed of these varieties is planted in onefortieth acre increase plots from which seed is obtained sufficient to plant a larger area. The next step is to increase the product of these plots still farther until sufficient seed can be produced to try out with farmers in various parts of the state.

variety and what it will mean to the young farmer who must take into account every factor that affects the yield if he is going to pay 6 to 8 per cent interest on \$100 an acre land. Two bushels' increase in yield to the acre resulting from the planting of a better variety means a net gain because it costs practically no more to produce 40 bushels to the acre than it does to produce 38 bushels and the extra two bushels to the acre would be a net gain of say \$2 an acre which would mean 6 per cent interest on onethird of the acreage which produced

VARYING RATE OF PLANTING

"Another way of reducing the cost of producing a bushel of wheat is to vary the rate of planting with the date of planting. In Kansas wheat planting time begins early in September, or the last week in August in certain seasons and in certain localities, and extends into November. In a single season a farmer may plant some wheat early in September and some as late as November and he will plant at the same rate on both of these dates. We have have found at the Kansas Experiment station that, the earlier wheat is planted, the less seed it is necessary to plant for maximum yield. If by knowing how much seed to plant at a certain date it is possible to save a half bushel of seed, the saving is a net gain and means say 50 cents, which is 6 per cent interest on one-twelfth of the acreage planted if the land is valued at \$100 an acre.

"There are still other factors in connection with the growing of wheat and other crops, that, to the farmer who has been in the business for 20 or more years, who owns his own land and is established in comparative comfort, seem like baby play and not worthy of serious consideration. Their acceptance or rejection by the man who is trying to pay for a farm out of the proceeds of the crop produced, however, will determine his success or failure. I am presenting wheat obtainable in the world in our these facts for the prospective farmer,

for it from his crops. It is these young men that I wish to encourage to become the owners of the 36 per cent of the farms in the state that are now tenanted, because the permanency and soundness of our agriculture will depend largely upon whether the land is farmed by the owner or a tenant.

SEEDBED IS BIG ESSENTIAL

"Farmers are beginning to realize that if they profit as they should through planting a high yielding strain of wheat, it is necessary for them to provide a favorable place for it to grow. The preparation of a good seedbed cannot be overemphasized. It has much more to do with increasing yields than the variety grown and must be kept constantly in mind by the young man who is trying to become a farm owner. Our soils are still rich in fertility, but the fertility is less readily available to the plant than it once was. The soil needs to plant—usually the most promising be plowed a little earlier in the season to bring about the same favorable condition for planting that once could be obtained by the mere scratching of the soil.

"We need to give our land a rest it to some other crop like corn, alfalfa. or the sorghums. We need to carry some live stock on the land and utilize as feed the roughage that now goes to waste on so many farms, roughage like corn stover, sorghum stover, and wheat straw. By diversifying crops and maintaining a few head of livestock on each wheat farm, the farmer will furnish himself with profitable year. Under the present prevailing system of growing wheat a man is out of a job about six months in every year. No other business under the sun would provide a man with even a decent living if conducted in this man-

"Connected with almost every farming operation are little details that have been overlooked and are still being overlooked by our farm owners today and the men who have been on "So much for the improvement of a the land since Kansas first became a state. While to such men these details seem not to amount to much, they must he kept in mind by every wheat grower or farmer of the future unless he should have the good fortune-rather the misfortune-to become the possessor of his farm through inheritance."

GIVE DEEP CULTIVATION BEFORE PLANTS APPEAR

F. S. Merrill Tells of Work Necessary in Growing Potatoes-Furnish Protection from Sun

Deep cultivation should be given the ground planted to potatoes before into every tear that comes to an intelthe plants make their appearance, advises F. S. Merrill, assistant horticulturist in the Kansas State Agricultural college. This is the deepest cultivation that should be given, as later there is danger of injuring the roots.

Cultivation should be frequent to keep the weeds down. One of the most effective tools commonly used for this purpose is the weeder. This should be used as often as possible until the tops of the plants get high enough to be injured by the teeth of the weeder.

Cultivation should be continued until the vines are large enough so that further cultivation would mean injury to them, points out Mr. Merrill. At the last cultivation dirt should be thrown upon the hills to protect the potatoes from the sun. If the potatoes are not well protected from the sun a green color appears in them which is said to be poisonous. This affects the quality of the product and produces a disagreeable taste. If the dirt is thrown up well on the hills not only will the growing tubers be protected, but plant food will be lib

A scientist informs us that "Guinea pigs do not come from Guinea, nor are they pigs." Well, for the matter in Kansas to employ an agricultural of that, china eggs do not come from agent. Three other counties have china, nor are they, for culinary purposes, eggs.—Springfield (Mass.) Un-

COLUMNIST ON CITY DAILY PROFITS BY SHOE LEATHER EXPERIENCE

t's a Good Thing for Young Man or Woman to Start Work on Small Paper, Says Strickland W. Gillilan-Don't Pray for "Rope"

The writer of the humorous column in the large city newspaper profits by having had shoe leather newspaper experience, believes Strickland W. Gillilan, who addressed the students in industrial journalism in the Kansas State Agricultural college, Thursday. Mr. Gillilan, aside from being one of the staff of the Baltimore Evening News, is a lecturer and humorist of wide repute.

It is usually more desirable, in the opinion of the speaker, for the young reporter to begin work on a small paper than a large one, because reporting for the former brings home better a sense of responsibility. After writing a "story" of a person for a small paper one is likely to step out the front door of the office and meet the victim face to face-which is not always a pleasant experience.

THREE NEWSPAPER ESSENTIALS

"There are three essentials in newspaper work," says Mr. Gillilan. "The first is accuracy—and the next two are the same thing.

"Whatever you pray for when you enter newspaper work, don't pray for 'rope'-pray for 97 people to go over your stuff after you have written it.

"The man who is a newspaper reporter ought to be required to give a heavier bond than a bank cashier."

WAIT TILL IDEAS RIPEN

Mr. Gillilan emphasized the advisability of acquiring the habit of making mental notes of ideas suitable for use in writing and of utilizing these ideas only when they are sufficiently ripe. The more personal humorous copy can be made, the better.

In speaking of the part which humor plays in the newspaper, Mr. Gillilan cautioned the students against holding up any religious creed to ridicule.

"One wants to hurt people as little as possible," he explained. "The reporter shouldn't take an unfair advantage of his position. All humor is, is showing people things in life from a new viewpoint."

HUMOR FOSTERS OPTIMISM

Mr. Gillilan spoke at student assembly Thursday. He made one of the most clever talks that have been heard at the college. He declared that "the prime essential of humor is the laugh or ripple which it produces. It fosters in us the spirit of optimism."

He pointed out as the purpose of optimism, "to put a rainbow of hope ligent eve."

COLLEGE GRADUATE BECOMES McPHERSON COUNTY AGENT

V. M. Emmert Will Be In Charge of Important Agricultural Work

The appointment of V. M. Emmert, a graduate of the agricultural college in 1901, as county agent for McPherson county has been announced by Edward C. Johnson, dean of the division of extension, Kansas State Agricultural college.

After graduation Mr. Emmert spent seven years in general farming and raising purebred live stock near Blue Rapids. He later spent four years in farming in Texas. In 1912, he left Texas to become teacher of agriculture in the agricultural high school at Doran, Minn., and was elected teacher of agriculture in the schools of Buffalo, Minn., at an increase in salary the following year. Mr. Emmert has remained in Buffalo since that time teaching agriculture and conducting extension work in agriculture in connection with his school work. He will assume his new duties June 1.

McPherson is the thirteenth county completed the organization of farm bureaus and county agents will be appointed soon.

PORCH BOX FOR BEAUTY

M. F. AHEARN POINTS OUT ATTRAC-TIVE GARDENING FEATURE

Any Housewife Can Grow Plants Success fully in This Way, Says Specialist -Success Depends on Attention Given by Owner

The attractive porch box is a feature of gardening that is too often overlooked, in the opinion of M. F. Ahearn, associate professor of horticulture in the Kansas State Agricultural college.

"Plants in boxes of this kind can be successfully grown by any housewife," says Mr. Ahearn, "and the increased beauty of the porch more than pays for the time and labor spent in caring for these boxes. They are within the reach of all and it does not require any great outlay of work or money to secure a well arranged and ornamental

"The first step is to make or procure satisfactory boxes. They may vary in size, although it would perhaps be well to use a box that is six inches deep and from six to 10 inches wide, and the desirable length. The size of the box will be regulated largely by the extent of the porch and the foundation upon which it will be placed.

"These boxes are more attractive if painted green instead of red or yellow. Green will harmonize with the foliage of the plants much better.

GIVE CHANCE FOR DRAINAGE

"Provide for suitable drainage by boring several holes in the bottom of the box, filling the lower part of the box to the depth of an inch and a half with rough material, such as pieces of sod or of rotten manure or small clods which will permit the water to escape freely and prevent the soil from sour-

"The best soil for window boxes is a mixture of sand and garden loam. If thoroughly decomposed sod can be obtained it may be substituted for the garden loam. Use about one fourth sand, one half garden loam or thoroughly decomposed sod, and one fourth well rotted manure. The best results will be obtained if plants are set in this soil directly from pots. By this method they will not suffer a serious setback on account of the transplanting.

"When the plants are finally set in the soil they should be thoroughly in a partly shaded place for a few stone work have already been done. days until the new roots are established.

"The proper arrangement of the plants to get the best effect is largely a matter of judgment and taste. A satisfactory combination may be procured by using vines, geraniums, begonias, and foliage plants.

GOOD VINES FOR BOXES

"Some of the best vines for window boxes are German ivy, vinca major, nasturtium, English ivy, and Kenilworth ivy. A unique and interesting porch box would comprise an arrangement of small evergreens such as the Chinese arbor vitæ, the red cedar and small spruces planted with such vines as Virginia creeper, Boston ivy, and honeysuckles. This latter arrangement would be more suitable for large verandas, but it would have the added advantage of being available in both summer and winter.

"The care of the plants in these porch boxes should be practically the state are being planned by the departsame as for plants grown in any other ment of highway engineering in the receptacle on the porch that require frequent watering. It is a good plan to syringe the leaves of the vines and months. The general plan of these plants to remove the dust that accumulates on the foliage.

"It is a good plan to add to the soil, especially in the later growth of on road and bridge building. the plants, some plant food, such as nitrate of soda or liquid manure.

cation of the boxes occasionally. If tended both meetings.

satisfactorily on one side of the porch, it is a good plan to move the box to another location where they will perhaps do much better.

"Lastly, it may be said that success with porch boxes will depend largely on the careful attention that the owner gives them. If properly fed and watered they should give a great deal of satisfaction, not only to the property owner, but to the many people who pass by."

LAMBERTSON TO SPEAK TO SCHOOL OF AGRICULTURE

Prominent Kansas Senator Is Secured for Commencement Address-Last Year's Graduates Are Farming

The program of the second annual commencement of the school of agriculture of the Kansas State Agricultural college, to be held the evening of June 9, will follow the same general plans found so successful last year, and will be given in the auditorium of the college.

W. P. Lambertson of Fairview, state senator, is the commencement speaker. At present Mr. Lambertson is chairman of the efficiency committee which has made a study of the state institutions. He is a former student of the University of Chicago.

Mr. Lambertson is a farmer and his selection as a commencement speaker is in accord with the policy of procuring one who is interested primarily in vocational activities.

Music will be furnished by members of the school of agriculture under the direction of A. E. Wesbrook, head of the department of music in the agricultural college.

Of last year's men graduates of the school of agriculture, all but one are now farming. The girl graduate has been teaching school and is preparing to enter upon additional school work

W. D. Scully of Belvue will go out this year as the first graduate from the course in mechanic arts.

SENIORS BUILD ATHLETIC PARK GATE AS MEMORIAL

Attractive Stone Structure Will Cost Class of 1916 \$500

Work has been started on the ornamental gateway to the college athletic park. The gateway is to be erected by the class of 1916 as a memorial. watered, and it is better to keep them The concrete work and part of the

The gateway will be divided into three entrances. One 10 foot entrance in the center will be for automobiles, and will be guarded by massive iron gates. The posts, of native stone, will be 11½ feet high. On each side of the automobile entrance there will be a five foot entrance, with a turnstile, for pedestrians.

In each of the large posts is to be set a stone with a design in full relief. One post will bear a baseball and the words, "Class of 1916." The other will have a football and the words, "Athletic Field."

The gateway will be finished in the next two weeks, and will cost the seniors \$500.

HIGHWAY ENGINEERS PLAN FOR GOOD ROADS MEETINGS

Demonstration Road or Culvert to B Built-Lectures by Specialists

Good roads meetings throughout the division of extension, Kansas State Agricultural college, for the next few meetings is to build either a demonstration road or culvert with volunteer labor and to give a series of lectures

One meeting has been held at Leonardville, and another at Hartford. A "It is well to experiment with the lo- R. Losh, assistant state engineer, at-

the plants are apparently not growing DOOM OF PARTY PRESS paper the community cannot do with-

FRED TRIGG DECLARES POLITICAL ORGANS WILL CEASE TO EXIST

Editor of Weekly Star Urges that News papers be Factors in Community Life Says Kansas Needs Fewer Legislators and Better Citizens

Party organs were scored by Fred C. Trigg, editor of the Weekly Kansas City Star, in an address before the students in industrial journalism Tuesday. These newspapers, he believes, will be driven out of existence.

"You cannot serve God and mammon," declared Mr. Trigg. "As a newspaper editor, you cannot serve a political party and your community at the same time."

"If I were to recommend a textbook for newspaper men, it would be the Bible," said the speaker. "There's one on my desk all the time and the rest of my books are in the library.

"It is the newspaper's business to stick its nose into every matter of public interest. No newspaper is worth a whoop that doesn't make itself a factor in its community for a four-square life. The paper that justifies itself, whether it be in the industrial life or the social life, is the paper that does what needs to be done."

NEWSPAPER IS LOGICAL TEACHER

Every person, according to Mr. Trigg, should be educated to use his 'think tank," and he maintains that the community newpaper is the logical

Mr. Trigg, while conceding that most newspapers warn their reporters to avoid the editorial news item, declares he has never seen a news item worth reading that did not contain a strong, vigorous editorial opinion.

He illustrated his contention by the everyday incident of a man being hurt by a street car. The public, he believes, is not so much interested in the mere fact that he was injured as in how he was hurt-whether by his own carelessness or by the negligence of the street railway corporation.

"If the news story is told only because of curiosity, the newspaper had better stay off of it," he said. "Three old gossips can spread it before the newspaper gets a hold of it."

In this connection, the speaker expressed regret that some Kansas newspapers are abolishing altogether the editorial page.

Since the early days of the state, there has been a complete revolution in the business life of Kansas, declared Mr. Trigg. The social life has formed there. The second meeting been next. There has been consider- planned will be held in the autumn, able change in the farming life. The political life is last, having gone on the same as formerly.

"Newspapers of 20 years ago were objects of charity," said Mr. Trigg. 'Kansas today has the best class of Is Accompanied by Committee from Leg newspapers, the best edited papers of all the union, with the possible exception of California.

"The blackmail class of papers has largely passed out of existence. Now another class-the gossiping class-is dropping out.

"The newspaper controlled by spepeople rebels against it.

BE A CITIZEN FIRST

"The party organ likewise must fail The paper printed as a party organ can never be the paper of the editor or of the community. No right minded newspaper can serve a political party and the community at the same time.'

Mr. Trigg urged that each journalism student first be not a newspaper man or newspaper woman but a citizen. The man that keeps his hands clear, his conscience clean, and his heart mail order house.-Toronto Republipure, is the man who will build the can.

He called attention to the fact that newspapers are more and more narrowing the circle of their activities and limiting themselves to their immediate communities. He predicted that newspapers would divide their circulation territory into zones, charging a higher subscription rate with increasing distance of the subscriber from the place of publication.

FOR SMALL LEGISLATIVE BODY

Three hours a year for six or nine men would be ample for the enactment of all the laws Kansas needs, urged Mr. Trigg in his address at the Tuesday morning assembly.

"I've heard representatives get up and say Kansas is tired of paying money for the agricultural college, the state university and other institutions of higher education," asserted Mr. Trigg. "Were they representatives of the people of Kansas? If they were, then Kansas has reached the high tide of its civilization.

"What Kansas needs is not more farmers, not more mechanics, not more bankers. What Kansas needs is more citizens, not more people to vote. Kansas needs a few more citizens who will be more careful in the votes they cast.'

The speaker criticized farmers who take everything they can from the soil without putting anything back into it and compared them to shiftless citizens who exact all they can from the state without making any return. He reminded the students that they were coming into a new responsibility and that the state needed their best services.

DAIRYMEN TO MEET AT ABILENE NEXT SATURDAY

Speakers from College and Elsewhere Are on Program-Another Meeting in Autumn

Dairymen from all central Kansas are expected for a meeting at Abilene May 20, at which problems of interest to producers of dairy products will be discussed by specialists.

Among the speakers will be Dr. H. J. Waters, president of the college; T. A. Borman, of the Kansas Farmer; O. E. Reed, professor of dairy husbandry; and J. B. Fitch, assistant professor of dairy husbandry in the agricultural college.

It is planned to hold two such meetings each year in addition to the meeting of the State Dairy association. Abilene is the center of a region pecially interested in dairying, the well known Dickinson County Cow Testing association having been the place not yet having been decided.

GOVERNOR OF MISSISSIPPI AT AGRICULTURAL COLLEGE

islature in Inspection Tour

T. H. Bilbo, governor of Mississippi, accompanied by a committee from the legislature of his state, is in Manhattan to inspect the work of the Kansas State Agricultural college. Both the University of Mississippi and the Mississippi Agricultural and Mecial interests is doomed because the chanical college are among the oldest intelligence, the very spirit, of the and strongest in the south. Careful work is being done by the authorities to broaden the efficiency of the insti-

> The only successful fight that can be waged against the mail order business is a financial, not sentimental, fight. If his money will buy as much todayand any day-in the home town, the farmer will spend it in the home town. It is up to the merchant to show the farmer he can and does sell goods, quality for quality, as cheap as the

TO PLANT OTHER CROPS

FARMERS WILL REDUCE LOSS FROM GREEN BUG INVASION

Specialist in Entomology Makes Investigation of Spring Grain Aphis in Southern Kansas-Insect Parasite Is Present in Small Numbers

It is not too late to plant to other crops wheat and oat fields that have been severely damaged by the green bug, or spring grain aphis, according to T. H. Parks, specialist in entomology in the extension division, Kansas State Agricultural college. Mr. Parks made a week's investigation of the pest in northern Oklahoma and southern Kansas.

The present distribution of green bugs in injurious numbers in Kansas fields, says Mr. Parks, covers Cowley, Sumner, and Harpercounties and parts of Barber, Kingman, and Sedgwick counties. Their presence is reported as far north as Harvey county. In Cowley, Sumner, Harper, and Barber counties, the green bugs have already badly damaged the young oats, and many oat fields will be planted to kafir. The yield of wheat will be cut short by the presence of the green bugs, and some will probably be damaged to the extent of 50 per cent or more.

WINGED BUGS ENTER KANSAS

Some of the bugs develop wings, and these migrating forms were brought into the Kansas counties from the infested fields of northern Oklahoma during the warm days of April and May. On May 4, 5, and 6, the winged green bugs were observed to be carried northward like flakes of fine snow driven by the warm wind from the southwest. When these plant lice alight on a favorable food plant, they give birth to several young each day. An average of about 30 young is produced by each green bug during its life. All are females at this time of year. As the young aphis will become grown and commence to reproduce in nine days, some idea can be had of the reason a field of grain, once infested, succumbs so rapidly.

During the week the migrating, or winged form, was taken as far north as Wabaunsee county, Kansas, but serious damage to wheat in central Kansas is not expected, because of the size of the plants.

DROUTH REDUCES RESISTANCE

The greatest injury has been done in Grant county, Oklahoma, where the green bugs apparently passed the winter. Here the drouth has rendered the plants less able to withstand the at-

The internal insect parasite of the green bug which finally checked the pest in 1907 is present this year in small numbers. This is a small, wasplike insect less than one-tenth of an inch in length. The larva of this develops within the body of the plant louse, killing the louse and causing it to become enlarged and turn to a yellowish brown color. It remains attached to the leaf, however.

Ladybugs have been effective natural enemies in Garfield, Woods, and Alfalfa counties in northern Oklahoma. In most of Alfalfa county they have controlled the green bugs in the wheat. Their appearance in large numbers, Mr. Parks points out, is a sign that the green bugs are going.

LAYTON SECURES TOP PRICE FOR CATTLE AT KANSAS CITY

Graduate of Agricultural College Is Successful in Live Stock Sales

Fred M. Layton of Blue Rapids, who was graduated in agronomy last spring, was successful in getting the top price on the Kansas City market Wednesday for his winter fed cattle, and within two cents of the top price for two carloads of hogs. Mr. Layton stopped at Manhattan for a day.

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Except for contributions from officers of the college and members of the faculty, the articles in The Kansas Industrialist are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

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SATURDAY, MAY 13, 1916

The man who can hypnotize people instantly by waving his hands before them has turned up in a Wichita courtroom.

Most people who have used hair tonic even on the place for which it is intended, are not surprised that drinking it killed four Texans who drank it died.

There are rows and rows about schoolhouse location, but the small boy would settle such controversies by putting the buildings where one was noticed in central Kansas not long ago-next to a watermelon patch.

The Tacoma court which convicted a man on the charge of libelling George Washington, appears to have laid down a new rule, "Nothing but good of the dead." Pretty soon there won't be anybody left that one has a right to criticise.

GENUINE EFFICIENCY

The Allen county farm bureau stands for genuine efficiency. So much is shown by its report just published. The mere fact that a report is published shows the enterprising spirit of the bureau. The matter contained in the report shows how a bureau with an efficient county agent may be of value to every type of farmer in the county.

The variety of work now in progress under the direction of this bureau indicates the wide variety of ways in quote the ordinance of 1787—that "rewhich the institution may be of as sistance. Here is the list in part:

Live stock-balanced rations and feed costs; cow testing and keeping records; assisting with colt shows; boys' and girls' stock judging classes; keeping poultry records; sanitation and disease control; more stock for the average farm.

Legumes-red clover on different soils, manure and other tests; alfalfa, fertilizer tests, manure or top dressing, tile and lime yields and results, yields on different soil types; sweet clover, green manure tests, pasture purposes, yields on different soil types, effect manure, lime, drainage: tests with alsike and cowpeas.

Soil management-improvement by manure, legumes, etc.; effect fall vs. spring plowing; drainage plans and surveys; soil washing; crop rotations for different farms.

Farm management and community work-farm surveys continued; silo filling costs continued; crop production costs-hay, flax, etc.; meetingsfarm bureau, other organizations; extension schools; assisting at local and county fairs; picnics and field meetings; plans for farm buildings.

Other crop work-corn, variety tests continued, fertility tests, manure, seed selection and breeding, seed testing, comparative yields with kafir; wheat, varieties and fertilizers, effect of manuring, yields following legumes; sor- sented their side, the harsh laws that

THE KANSAS INDUSTRIALIST ghums, larger acreage, silage tests continued, kafir breeding work, seed selection, Sudan tests continued; grasses, pasture improvement, mixed grasses for pasture, Japanese clover for pasture; gardens, variety tests, fertilizers; orchard pruning and spraying, general care of fruits, more home orchards; insect control, staple crop, Hessian fly, etc.; plant disease control, common diseases of garden, orchard, and field.

School and club work-lectures and demonstrations; canning demonstrations; agriculture tours and boys' hikes; boys' and girls' club work, corn, kafir, pig, garden, poultry, and sewing.

Miscellaneous work-home sanitation; water and sewer systems on the farm; investigative work (farm visits); good roads; silo building; newspaper articles, bulletins, circulars; seed and live stock exchange.

The work outlined by this bureau could be modified to suit the needs of any up-to-date farming community. It affords a practical, working basis for modern agricultural improvement.

RELIGION IN STATE INSTITUTIONS

Perhaps the most striking fact reported by the Young Men's Christian association in the middle west is that of the 71 colleges in which the organization is unrepresented only five are state institutions. It is true that one cannot gauge the religious condition of a college or university merely by the presence or absence of a particular religious society. Nevertheless, the fact that there are only five state institutions in the middle west where the Young Men's Christian association does not exist, does not indicate any lack of religious opportunity and interest in such institutions.

It is to be noticed, moreover, that the proportion of members of "evangelical" churches-and presumably of all religious bodies—is practically the same in the state and the other institutions. In the state institutions it is 42 per cent of the total enrolment; in the private institutions, supported by religious organizations and by other means, it is 45 per cent.

The figures indicate no striking deficiency in religion on the part of students in state institutions. Observation will lead to the same conclusion. At the Kansas State Agricultural college, for example, members of the college faculty are members of the lay boards-sessions, boards of trustees, vestries, and the like-of practically all the religious bodies in the town They take an active interest in religious affairs. Students form a large proportion of the congregations. The same conditions prevail at other state institutions. The men and women in these institutions recognize-to ligion, morality, and knowledge [are] necessary to good government and the happiness of mankind."

READING IN SCHOOLS

Some years ago in a Canadian city objection was made to reading "Marmion" in the schools. Roman Catholics protested against the scene in which the nun is buried alive, and spoke of this narrative with a vehemence that surprised the average reader. In his own time, Scott was by the strict Calvinists of his native country blamed as one who generally saw the picturesque side of the middle ages. The devotions of Quentin Durward, the earnestness of Father Eustace, the hymn of Ellen Douglas, and the lifelong penance of the baton of Smaylholme showed a kindly, certainly not a bitter, spirit toward the religion of the characters described.

Today in many American cities Jews, while paying tribute to Shakespeare's genius, ask that "The Merchant of Venice" be not read in high schools. A Hebrew satirist once said that Shakespeare was broader than any other writer of his day because he conceded to Shylock the Christian failing of revenge. It is, however, a reasonable request. Other plays show the power of Shakespeare without arousing old memories that it would next. be best to forget. If the Hebrews pre-

confined them in ghetto or Judenstrasse, the restrictions that barred them from many callings, the mob violence that yet breaks out in Russia and has been threatening even on American soil, the real facts would more than offset the dramatic portraiture of Shylock.

At times even today a school history stirs up controversy over the war for the Union. In Louisiana "Mother Goose" rhymes are in disfavor on the ground that they are disrespectful to the farmer. There have been text after a hard but interesting year's books which started local disputes work in the Utah Agricultural college

Kellerman, and a golden eagle, acquired by purchase.

The main hall of the college building, 250 feet in length, is today receiving new matting, much to the comfort and beauty of the hall.

The flow of visitors to grounds and buildings is increasing each year with the increase of attractions outside and in. Our friends are always welcome.

Miss Abbie L. Marlatt, '88, expects to greet friends here at commencement

How could one dig, and half the time Gaze at the luscious sky! Better to watch my dipping kite Go swaying up the cloud,

or mock the tireless thrush, or shout My own free songs aloud." So half the day he gazed and wished,

THE TRUANT

Edward Rowland Sill

Who would not, under blue like that,

If they but knew the ripple's splash,

Sent out, was I, to turn the sod?

What waste of such a day!

Fling the old spade away?

And loved the lark as I!

The tugging kite to be, And wondered if that endless sky Was not eternity. Or, tossing snowy pebbles out

Beyond the lake's gray rim, He stood to watch the ripple-ranks Come ringing back to him.

Was it, I wonder, loitering there Only an idle boy? Or was it a poet, claiming so His heritage of joy? Who watched above the rounded world His fancy float and swim,

men's Brave deeds ring back to him.

SUNFLOWERS

Or tossed his dreams out, watching

The emptier a girl's head is, the tighter she ties her hair ribbon around it.

We trust that Mr. Maxim will hit upon some kind of a silencer for the man who is learning to play golf.

EVEN MOTORS GET VEXED, IT SEEMS People have been known to crank a motor for hours and leave it disgusted for a time. - Instructions for the Operation of Overland Cars.

> THE LEAFY SPRING The leafy spring Is come, I trow; I'll have to change My manners now; I'll gaze on sky And grass, and bough, And move around

> > Just like a cow.

DON'T CROWD THE PROOF ROOM, BOYS

The K. C. Post runs an article, 'About Girls," which it takes pains to say is "by an experienced proofreader, Adalbert Beach." There are all sorts of qualifications for writing about girls, but this is the first time we knew proofreading was in that

FROM THE LOVE LYRICS OF LUCILE

I know a comely lad With dainty ways, Beneath the trees we sit-He sings my praise.

He is so dear to me, The silly wight; He acts so mushy when He says good night.

And last night when he left-The moon had risen-He promised to be mine If I'd be his'n.

MEASURING PAPER GLARE

An instrument to measure the glare of book and magazine paper has been perfected at the United States Forest products laboratory at Madison, Wis., so that this property in printing paper may be expressed in percentage of a standard as a basis for a study of the problem.

Since the glare of many papers is known to have an injurious effect upon the eyesight of readers, much has been written on the subject and societies have been formed to promote the use of unglazed papers, especially in school books. The amount or intensity of the glare depends to a large extent upon the method of manufacture-a highly calendered paper is more injurious than the soft, dull paper used by daily papers—but until now there has been no satisfactory method of measuring the intensity. This instrument specimens collected in various parts of has therefore aroused much interest the United States, including 49 western among paper manufacturers and has been used in some of the larger mills with good results.

To Get Along in the World

Dr. Newton N. Riddell

THE primary cause of success or failure is in the individual. If a man has the right material in him he will make opportunity master fate and win out honorably.

A man's chance for success in life is determined by the strength and number of positive elements of mind and character. The negative, passive person is not wanted anywhere. The young man of positive impulses, mental alertness, and forceful energies is by the law of natural affinities in demand.

Young man, if you would succeed in life start with the idea of making your own way, earning what you get and giving value received. Don't be afraid of hard work. Every winner is a worker. Constitutional laziness is a worse handicap in the race of life than tuberculosis. Genius has been defined as the capacity for intelligent, persistent hard work. Edison says, "Genius is 2 per cent inspiration and 98 per cent perspiration."

Get control of your appetites. They are excellent servants but tyrannical masters! They rule to ruin. They wreck genius, blast hopes, and defeat ambition. The employers of 80 per cent of the employed in the United States refuse to keep a man on their pay rolls that drinks intoxicating liquors.

Dismiss the notion that you can do everything equally well. Find out what you are fitted for by studying your tastes, talents, and sentiments and the requirement of various vocations; then select the line for which you have the most natural ability and educate for it. Take time to put your money into your brains. Prepare thoroughly; concentrate upon the one thing. The first class man in his line is always in demand.

Learn to carry responsibility. There are 100 men that know how for one that can be depended upon to always do as directed. If somebody has to "O. K." your work, you have to pay his salary.

Take advantage of your present opportunities. Do the best right where you are and greater opportunities will open to you. It is the margin of work, of interest, of courtesy, and of character that a man puts into his life's effort over and above what is required of him that develops him and opens the way for greater achievements.

Selfishness is suicidal. He who lives for self suffers much, accomplishes little, and dies a failure; but he who loves God and lives to serve his fellow men grows daily, becomes efficient, enjoys life, and win's a victor's crown.

over scientific views held by divers citizens to be hostile to Christianity. Perhaps the most astonishing protest of our generation was that of a local school board which found indelicacy in Longfellow, -the launching of the ship was likened to a wedding, the ship was the bride, the ocean a "bridegroom old and gray," and the authorities were shocked.

With a population of millions it is not to be expected that the course of the public schools will always run smooth. From time to time controversies must be looked for, or they will come whether looked for or not.-Camden (N. J.) Post-Telegram.

A QUARTER CENTURY AGO Items from The Industrialist of May 16, 1891

A fine lot of veterinary instruments has just been received.

Several students are off on a pleasure trip to Fort Riley today. The proposed excursion to Blue

Rapids has been declared off. Prof. S. W. Williston, '72, called at the college a few moments on Thurs-

day morning.

The annual game of ball between the fourth-years and faculty will be played at the city park on Friday afternoon

a channel catfish, donated by Mrs. collected in Bolivia.

Professor Nichols is enjoying the handling of several hundred dollars' worth of new apparatus for illustrating his work in the classes studying heat, light, and electricity. The enrolment for the college year

has now reached 592. This is 78 greater than that of last year, while the upper classes show even greater increase in proportion.

F. J. Rogers, '86, writes from Cornell university that he is about to set out in the work of teaching physics. He is certainly well equipped for the task, after his two years of investigation and study at Cornell.

The literary societies of the college are fortunate in having secured the Rev. George P. Hays, D. D., of Kansas City to deliver their annual address on Monday evening, June 8. The address will be a rich treat.

Miss Florine Secrest, '89, made her college friends a pleasant visit this week. She will next week start on the journey to California, expecting to spend at least a year in that land of flowers. Her address will be San

The botanical department received this week from the United States department of agriculture 300 herbarium Recent additions to the museum are grasses and more than 100 specimens

Miss Ruth Graybill, '11, is living with her parents in Filer, Idaho.

Lynn Daughters, '09, of Council Grove, was a Manhattan visitor re-

Miss Marie Boyle, '15, who was visiting friends in Manhattan, went to Kansas City this week.

Mrs. Stella (Hawkins) Gallup, '09, of Marysville and her two children are visiting here this week.

Miss Mary Gurnea, '15, has been elected to teach home economics in the schools of Tecumseh, Nebr.

Miss Helen D. Robinson, '14, has been elected to teach home economics in the Holton high school next year.

Miss Frieda Stuewe, '15, who taught at Kensington this year, will teach home economics at Madison next year.

Paul Carnahan, a former student of the college, is a successful employe of the Southwestern Electric company in Wichita.

Miss Winifred Johnson, '05, is attending the Moody Bible institute. Her address is 830 North La Salle street, Chicago.

Cameron Goldsmith, '14, is in charge of the dairy department of the state hospital, Topeka, and reports that he is enjoying the work.

Miss Eva Pease, '15, who has finished teaching a successful term of school at Attica, will return to her home in Manhattan next week.

Dr. K. P. Mason, '04, of Cawker City, was a college visitor this week, while on his way to Chicago, where he will take summer work in medicine.

Mrs. Corinne (Failyer) Kyle, '03, and daughter Claudia have arrived in Manhattan. They will be at home at 1000 Osage street during the summer.

Carl L. Ipsen, '13, has moved from Lynn, Mass., to 45 Mohawk street, Buffalo, N. Y. He is a motor salesman for the General Electric company.

daughter Frances, of Geneseo, are spending the week with Mrs. Newkirk's parents, Mr. and Mrs. G. H.

G. I. Walsh, '15, is given first place, for volume of business secured, by the life insurance company which he for three years, so that three new represents. The contest covered the directors shall be elected each year agents working from the Kansas City thereafter.

Royal S. Kellogg, '96, called on old friends at the college recently on his way from San Francisco back to Chicago. He says his business as secre- three years, and two for a term of one tary of the National Lumber Manu- year. It shall be the duty of this the road most of the time.

W. W. Haggard, '15, spent the week end in Manhattan visiting friends. Mr. Haggard is doing test work for the Santa Fe. Since graduation he has traveled extensively in the west and was stationed at the Panama-Pacific exposition with the Santa Fe exhibit.

John McBride, '14, superintendent of the Sinclair township high school, located at Lovewell, and Miss Nora S. Dahl, '14, principal, are featuring a high school play, field day exercises, and basket dinner, in connection with the commencement exercises of their school.

H. V. Matthew, '14, now employed in the State Normal school at East Las Vegas, N. M., has been elected for another year. He has been giving some time to the organizing of clubs for boys and girls. Under the direction of Mr. Matthew, school gardens have been started in the normal school and also in the city schools.

EASTERN ALUMNI BANQUET

The Kansas State Agricultural College Eastern Alumni association held the annual banquet at the Prince the student newspaper, next year. Mr. George Hotel in New York on the evening of April 15. Teachers' college of Columbia university was well represented and all attending were es- journalism, and are capable young pecially delighted to see Prof. and men.

Mrs. Frank Waugh of the Massachusetts Agricultural college.

As a result of several outings last summer the banqueters seemed more like one large jolly family and all entered heartily into the entertainment of the evening. The 21 who sat down to a good and well served dinner were entertained between courses with music and readings by various members of the association. All were enthusiastic about continuing the Kansas spirit in New York and agreed to meet on June 3 for a picnic.

The officers elected for the ensuing year are: Mrs. Christine (Hofer) Johnson, president; Mr. J. B. Dorman, vice-president, and Donald Ross, secretary-treasurer. Those present were: Prof. and Mrs. F. A. Waugh, Mr. and Mrs. A. L. Burns, Mr. and Mrs. Lester A. Ramsey, Mr. and Mrs. William Mitchell, Mrs. Christine (Hofer) Johnson, Mr. and Mrs. J. B. Dorman, Miss Wilhelmina Spohr, Miss Helen Monsch, Miss Martha S. Pitman, Miss Amelia Wheeler, Miss Alma G. Halbower, Miss Henrietta Hofer, Miss Leaffa Randall, Mr. R. F. Corbett, Mr. Donald Ross.

CHANGES IN CONSTITUTION

Changes in the constitution of the Alumni association will be made as follows, if amendments to be proposed at the June meeting are adopted:

ARTICLE I

Not changed.

ARTICLE II Not changed.

ARTICLE III

Strike out section 5 and substitute the following:

Section 5. The dues of the association shall be \$1 a year for members, and honorary or associate members who wish to be identified with our enterprises may become sustaining life members by payment of \$20. Funds derived from life membership shall be under the direction and control of the board of directors.

ARTICLE IV

Amend section 1 of article IV to read as follows: The control of the association shall be vested in a board of directors consisting of nine mem-Mrs. Alice (Kiser) Newkirk, '14, and bers. The directors shall be elected at the annual meeting for a term of three years, but of the six new directors elected at the first meeting of the association after the adoption of this amendment, two shall be elected for one year, two for two years, and two

> Section 2. The board of directors shall appoint an advisory council, consisting of five members, three of whom shall be appointed for a term of association keeps him on council to advise with the president of the college, with the deans, and with other college authorities and to assist in the furtherance of the interests of the college wherever possible.

The advisory council shall make a report to the annual meeting.

Section 3. The officers of the board shall be the officers of the association. Section 4. Unchanged.

ARTICLE V

Not changed.

Section 1. The constitution may be amended or revoked by a three-fourths vote of all members present at any

ARTICLE VI

annual meeting, provided that at least one month's notice [instead of two months'] shall have been given through THE INDUSTRIALIST.

Section 2. Not changed. ARTICLE VII

Not changed.

BOYER AND BORING WILL HEAD COLLEGIAN STAFF

Journalism Students Will Be Editor and Manager of Paper

Arthur Boyer of Scranton and J. M Boring of Spring Hill will head the staff of the Kansas State Collegian, Boyer will be editor in chief, Mr. Boring business manager. Both are students in the course in industrial

KAFIR ANT A MENACE

DISK GROUND OR USE A REPELLENT TO DESTROY PEST

Colonies of the Insects Are Found in Kansas Grain Fields-Not Confined to Sorghums-W. P. Hayes Tells of Their Life Habits

Disking ground thoroughly, or washing seed with such repellents as kerosene or turpentine, are methods that should be employed in combating kafir ants, asserts W. P. Hayes, assistant in entomology in the Kansas State Agricultural college.

"Kafir ants," says Mr. Hayes, 'cease to injure cane, milo, feterita, and maize plants soon after germination. This means that either germination must be hastened or a repellent applied to the seed. In case of the latter method the odor soon leaves the seed and consequently the protection is not complete.

"While most farmers know well the character of the injury done by kafir ants, few of them are acquainted with the depredators due largely to their minute size and habit of working underground. They have found seed kernels wholly or partially hollowed out with the mealy interior scattered about on the ground and the cuticle or outer shell scarcely disturbed.

"Colonies of these ants are numerous and may be found under rocks in pasture lands and in kafir, wheat, rye, oats, and alfalfa fields."

HABITS OF KAFIR ANTS

Isolated and compound nests are composed of small chambers, whose walls are hardened and packed. The minuteness of these galleries prevents larger ants from molesting the kafir ants. Winged males and queens appear in July. No data have been obtained on the mating flight.

The eggs of the kafir ant are quite small, white, and elliptical in shape. They are laid by fertile queens and with double hooked hairs enabling them to cohere in packets to be carried by the workers. The length of the larval stage is variable, depending upon moisture and weather conditions. As to size the worker is the smallest, the male intermediate, and the queen the largest. These three forms are white during the early stages of pupal development, but as growth proceeds, they gradually assume the color of the adult form.

WATERS URGES STUDENTS TO AVOID USING TOBACCO

College President Points Out that Smoking Is Debit Item in Ledger of Life

Don't use tobacco, urges Dr. Henry Jackson Waters, president of the Kansas State Agricultural college, in a letter sent to all the men students of the institution.

"If you were applying for a position of any kind," writes Doctor Waters, "would you deem it wise to mention among your qualifications the fact that you use tobacco? Do you realize that if your prospective employer knew that you smoked and particularly if he knew that you smoked cigarettes, he would employ you, if at all, in spite of the fact and not because of it?

"It is my deliberate conviction, after using tobacco 25 years and then quitting it, that smoking is to be entered always as a debit item in the ledger of life. Let me urge those of you who have not yet formed this injurious and unnecessary habit to resist its temptation. Let me urge those of you who have begun the use of tobacco to show strength of character by quitting. Such an act will greatly increase your respect for yourself and will give you strength and courage to meet the greater crises of life."

HIGH SCHOOL TRACK MEET PROMISES TO BE SUCCESS

College Offers Medals to Men Placing-Cup from Governor Capper

The sixth annual state high school track meet, to be held at the agricultural college this afternoon, promises will assume his new duties June 1.

to be successful. Only those who have | CONTROL PEACH BORER placed first or second in the district meets are eligible for this meet.

The college offers gold, silver, and bronze medals for the first, second, and third places in each event, and a relay cup. Governor Arthur Capper offers a cup to the school which wins the meet.

The schools which have entered so far are:

First district-Winchester, Hiawatha, Topeka, Perry, Meriden, Oskaloosa, Ozawkie, and Valley Falls.

Fourth district-Lawrence, Marion Alta Vista, Emporia, Overbrook, Lost Springs, Peabody, Eskridge, Emporia Normal high school, and Burlington.

Fifth district-Enterprise, Dickinson county, Manhattan, school of agriculture, Minneapolis, Abilene, and Sa-

Sixth district-Almena, Logan, Smith Center, Norton, Phillipsburg, Goodland, and Agra.

Eighth district-Wichita, which won the district meet.

NABOURS WILL SPEAK AT UNIVERSITY OF CHICAGO

Will Read Paper at Anniversary Celebra tion of Big Institution-Honors to Zoology Men

During the twenty-fifth anniversary celebration of the founding of the University of Chicago, the first week in June, Dr. R. K. Nabours, head of the zoology department, Kansas State Agricultural college, will read a paper before the association of doctors of philosophy on "The Application of the Inheritance Behavior of Color Characters in Orthoptera to Inheritance of Combs in Fowls and the Colors of Peas."

Ray Allen, instructor in zoölogy in the agricultural college, has been appointed assistant in zoölogy in Cornell university. Besides his teaching duties Mr. Allen will have opportunity to pursue advanced studies with Prof. cared for by the workers. These eggs J. G. Needham. His work will be in hatch in from 16 to 28 days. Larvæ, fresh water biology, in which subject which are white in color, are covered he has specialized several years. During the summer, before assuming his duties in Cornell in the fall, Mr. Allen will teach in Indiana university.

A. W. Bellomy, assistant in genetics in the zoölogy department, has been awarded a fellowship in genetics in the zoölogy department of the University of Chicago. This much prized fellowship was awarded to Mr. Bellomy largely on account of the merits of a paper-to be published this summer-describing a breeding experiment which he has carried on during the past two years.

WILL APPOINT COLLEGE MEN WEST POINT CADETS

War Department Informs President Waof Opening for Graduates of Institution

Five Kansas State Agricultural college men will have the opportunity to enter West Point as cadets, according to a telegram received today by Dr. H. J. Waters, president of the college, from the adjutant general of the United States war department. The men will be selected by competitive examination not later than July 10. Honor graduates of the institution are preferred.

JOHN LEWIS WILL BECOME AGENT FOR NEMAHA COUNTY

Is Experienced in Farm Work and in Teaching Agriculture

The appointment of John D. Lewis, formerly instructor in animal husbandry in the Kansas State Agricultural college, as county agent for Nemaha county has just been announced by Edward C. Johnson, dean of the division of college extension.

Mr. Lewis is a Pennsylvanian and was graduated in agriculture from the Pennsylvania State college in 1912. He then came to Kansas to assist in animal husbandry and later was made instructor. He resigned December 1, 1914, to take charge of a live stock demonstration farm for the United States department of agriculture at

COMBINATION OF SEVERAL STEPS IS NEEDED, SAYS ENTOMOLOGIST

Doctor Merrill Advocates Mounding, Applying Protective Wash, and Digging Out Larvae-Insect Infests Many Trees and Causes Heavy Loss

The best method of control for the peach tree borer is a combination of mounding, applying a protective wash, and digging out the larvæ with a sharp knife, according to Dr. J. H. Merrill, assistant professor of entomology in the Kansas State Agricultural college and entomologist in the Kansas Agricultural Experiment sta-

"The first thing to do in the spring is to worm the trees," says Doctor Merrill. "Next apply the protective wash and then mound to a height of eight or 10 inches. Mounding makes the female deposit her eggs high up on the trunk of the tree, and seems to have a tendency to decrease the number of eggs deposited.

"The mound should be removed in June, and all borers exterminated, after which the mound should be replaced. Another worming should be made in September but it is not necessary to replace the mound at this time.

WASH SERVES TWO PURPOSES

"A good protective wash can be made by adding one pound of arsenate of lead to five gallons of lime-sulphur solution. The former acts as a poison and the latter as a repellent.

"Various kinds of wrappers have been advocated but so far have not proved very satisfactory. The same may be said of the large number of washes which have been suggested or advertised."

The adult moth is a beautiful insect. Most persons because of the shape of its body would take it to be a blue wasp rather than a moth. The fore wings of the male are transparent, with veins and edges of steel blue. The abdomen is steel blue, fringed with yellow behind. In the female the wings are opaque-covered with steel blue scales-and a broad band of orange extends nearly around the abdomen.

WINTERS IN LARVAL STATE

The full-grown larva is about one inch in length. The color is a very light yellow, with dark, reddish brown head, and markings just back of the head and at the tip of the abdomen.

The peach tree borer passes the winter in the larval stage. Most of the larvæ that winter are only half grown, although some of them may be fully grown. The large ones spend the winter in their burrows beneath the bark, while the others usually remain on the surface, protected by a covering of

Activity is resumed in early spring, the old burrows being continued or new ones started. When full grown the larva emerges from its burrow and incloses itself in a cocoon composed of silk, together with bits of refuse bark and particles of borings. In three or four weeks the moths begin emerging from the pupa stage, and emergence continues until some time in Septem-

FOLLOWS THE PEACH TREE

"Wherever the peach tree is found, east of the Rockies, the peach tree borer is found also," says Doctor Merrill. "It does not, however, confine its attacks to the peach but is found on the cherry, the plum, the prune, the apricot, and the nectarine. The presence of the borer is manifested by the appearance of a gummy ooze at the base of the tree. Occasionally burrows are made as much as six or eight inches above the ground, but usually at or beneath the surface.

"Old trees as well as young are subject to the attacks of the peach borer. The tree becomes weakened and consequently is a prey to its various other enemies. It is estimated that a loss of \$6,000,000 was caused in the United States in 1909 by the peach tree borer."

Every time a certain Atchison man gets mad, says Carl Brown, he wishes New Iberia, La. He is regarded as he owned a newspaper. That's just the an exceptionally able man. Mr. Lewis time you shouldn't own one. - Kansas

THIS GERM DISEASE IS MORE THAN A MERE COLD

Impression Among Poultry Raisers That Any Affection of Breathing Organs Is So Classified Is Erroneous-Advice by R. H. Needham

Roup is a germ disease originating in the poultry flock either through bringing infected birds in contact with the others, or by means of bacteria carried by the wind. The general impression among almost all poultry raisers that any affection of the mouth or breathing organs of a fowl is a form of roup is incorrect, according to R. H. Needham, associate in stock remedy analysis in the Kansas State Agricultural college.

"One should exercise care and intelligence in diagnosing cases of suspected roup, especially at long range,' says Mr. Needham. "The trouble may be mechanical. Sometimes for eign substances, such as small bones become lodged in the throat. A brief examination will aid materially in determining the character of a respiratory malady, thus frequently enabling one to overcome conditions which lead

DAMPNESS SHOULD BE AVOIDED

"Because of the general impression regarding roup preparations prepared and manufactured for diseases of the should be removed with a toothpick, respiratory organs are classed as roup remedies. Drafts, dampness, and ex- taken to destroy or disinfect all such posure are conditions that promote the material. A number of reliable remedevelopment of roup germs. They are dies may be applied afterwards. Sevfactors which tend to reduce the vital- eral are listed with percentages and ity and establish inflammatory conditions, enabling germs to gain entrance into the system and to thrive, whereas given in terms most convenient to the in good health the effects might be slight and of short duration, due to the prompt resistance offered by a well fortified system.

"A cold once established, catarrh quickly develops. Simple catarrh is not considered contagious. It is apt to appear during cool, damp, windy weather and the common symptoms are wheezing and sneezing, with a thin watery discharge from the mouth and nostrils. The eyes may become watery and while there is always an odor, it is not offensive. Croup may follow such conditions, wherein the inflammation extends down the windpipe to the bronchial tubes, producing a bubbling or rattling breathing. Croup demands immediate treatment as death may occur within a few hours after the beginning of an attack. An efficient remedy is three to five drops of wine of antimony every half hour."

SYMPTOMS OF CATARRH AND ROUP Most persons experience difficulty in distinguishing between catarrh and roup, points out Mr. Needham. These trouble in reaching correct conclusevere and contagious types, some authorities apply the terms nasal roup and diphtheritic roup. Others call the former contagious catarrh and the latter chicken or avian roup. The terms are a matter of choice as both forms are contagious, the diphtheritic being the more severe form and more conta-

Nasal roup obtains its start usually from simple catarrh, contagious bacteria becoming present in the catarrhal discharge, which may become still more virulent due to diphtheritic roup bacteria coming from no one knows where; provided no previously infected fowls are brought into the flock. The symptoms of nasal roup are those of a cold accompanied by a nasal discharge at first, the discharge becoming quite thick within a few days. The inflammation spreads from the nasal passages to the eyes, causing considerable swelling in this region, often closing the eyes, plugging the nostrils, producing mouth breathing and hawking. This malady, though quite severe, may last for weeks, the fowls affected finally completely recovering.

DISEASE ATTACKS EVERY BIRD

Diphtheritic roup may develop from nasal roup, according to Mr. Need-

HOW TO DETECT ROUP ham. This disease is apt to make its appearance in summer when the young fowls are about half grown. When it once becomes firmly established in a flock it persistently runs its course, attacking every bird. Only by complete isolation and extreme care can its ravages be checked.

Recognition of the disease at the beginning is most important. This form of roup develops characteristic patches in the mouth and throat of a peculiar yellowish color which, upon removal, leave bleeding inflamed surfaces, soon reforming, becoming cheesy and hard and much darker in color than the first patches. All discharges have a tendency to become hard and cheesy and the odor is offensive. Later, the comb may drop limply, losing its bright color and becoming rather dark. Small, shot-like growths, the beginnings of tumors, may appear in the region of the orbits. This condition has been given the appropriate name of "sore head" and often develops during an attack of roup.

It may not be the most profitable treatment but one is sorely tempted, under such conditions, to effect a cure with an ax. To effectively combat this disease, sick fowls must be completely separated and kept at some distance from the others. Treatment must be regular and frequent, as often as three times daily in severe cases. Mucous plugs, patches, and incrustations splinter, or cotton swab, care being approximate quantities for solutions. While not exact, these quantities are average poultry raiser. For the solids any druggist will be willing to weigh up a few portions to give one an idea of bulk.

SIMPLE HOME REMEDIES

The remedies: Hydrogen peroxide and water, equal parts; potassium permanganate-2 per cent, or one-half teaspoonful to one teacupful of water; boric acid-4 per cent, or one teaspoonful to one teacupful of water; coal tar disinfectants-2 per cent, or one-half teaspoonful to one teacupful of water; carbolic acid-5 per cent, or one teaspoonful to one scant teacupful of water.

"Tumors and pus cavities should be opened with a sharp knife, drained, and swabbed with the remedy," says Mr. Needham. "If possible, it is a good plan to use a dropper and wash out the pus cavities. Turpentine and for 1915, which has just been prepared kerosene may be used to swab but these remedies do not penetrate well and should be applied only to exposed places."

Many busy persons assume that are two distinct poultry diseases and fowls can treat themselves by the use if the symptoms of each are kept in of drinking water in which has been mind, the poultryman will have little placed potassium permanganate, copper sulphate, ferrous sulphate, carsions. Prompt attention should be bolic acid, or coal tar disinfectants. given to ailing birds. In the more This treatment is only precautionary and will not prove efficient in case of very sick fowls. These birds having but little appetite require individual attention and feeding. Preparations administered dry or in solid feed have little value in the treatment of roup. The remedy must come in close contact with the germs to be effective. It is well to remember that diphtheria has developed in children who have fondled roupy chickens placed aside for treatment. Care should be exercised to change clothes and to cleanse the hands after handling such fowls and disinfectants should be plentifully used about the coops and premises. Usually an attack of roup renders the surviving fowls immune from further attacks of this disease and instances have been observed where the offspring of such fowls were also immune.

Many prepared or proprietary roug remedies are to be found on the market, nearly every one of which contains one or more of the chemicals mentioned in this article. For efficiency and cheapness it is recommended that one use the simple remedies which can always be purchased

TIME TO START WORK

PLANS SHOULD BE MADE NOW FOR FALL COLT SHOW

Above All Things Get a Live Manager, I Advice of Dr. C. W. McCampbell-Other Timely Suggestions by Animal Husbandry Specialist

Now is the time to begin work on the annual colt show, points out Dr. C. W. McCampbell, assistant professor of animal husbandry in the Kansas State Agricultural college.

"Nothing stimulates greater interest in better and more efficient farm horses than a properly managed colt show," says Doctor McCampbell.

"It is desirable to begin work early as the management must have plenty of time to make a thorough canvass among the colt raisers of the community for entries. Above all things the manager must be a live man-not merely a good fellow.

"The best time of year for holding a colt show is in October or the early part of November. By then the colts are usually weaned and broken to halter and can be displayed to ad-

OWNERS SHOULD CO-OPERATE

"The cooperation of the stallion owners is necessary to the success of the show. This does not mean they should be asked to contribute prize money, but they should be made to feel they are being benefited by the show and that its success is of commercial interest to them. It is in the spring that the stallion owners see the largest number of colt raisers. If they are interested they will all talk colt show with those with whom they do business."

The show may be held in connection with the county fair, or a county or even a township may have a good colt show apart from the county fair, suggests Doctor McCampbell.

A number of prizes together with ribbons should be given in each class. The amount of money given makes little difference as it is soon spent, but a ribbon is kept and is prized by all the members of the household.

ALLEN COUNTY BUREAU MAKES VALUABLE REPORT

W. E. Watkins, Agent, Points Out Activ ities of Past Year and Gives Important Farm Information

Information of great value to every farmer is contained in the annual report of the Allen county farm bureau by W. E. Watkins of Iola, county agent. The report is a pamphlet of 60 pages, attractively illustrated and full of practical facts. It is one of the first such reports published.

Among subjects taken up are sweet clover, red clover, alfalfa, cowpeas wheat varieties, corn and sorghums, fruits, live stock, farm drainage, bees, good roads, and farm business. Mr. Watkins says in introducing his report:

"With a yearly income of over \$3,000,000 from farm products, agriculture easily ranks first among Allen county industries. It is largely because of this fact that the best business men of the county have consistently supported the work of the farm bureau, whose constant aim has been the development of the commercial, moral social, and educational phases of rural and community life. This report deals with some of the fundamentals of agriculture, and all results contained therein are based upon actual returns from about 200 farms of the county. It is impossible to deal with every farm practice because of the wide diversity of methods followed on our 2100 farms.

"As the soil is the basis of all agriculture, more time has been given to the study of soils and soil fertility problems than to any other one activity of the farm bureau. This has been especially necessary in Allen county not only because of low average crop yields, but also because of the fact that several different soil types prevail in the county and quite often three or more of them may be near at hand and in any quantity. found on an individual farm.

"Profitable live stock and desirable leguminous crops are absolutely essential, if our soils are to be maintained in a high state of fertility After a careful study of our live stock situation, it is evident that there is still room for improvement in methods of breeding and general care of stock on all of our farms.

"Many farmers of the county still have a misconception of farm bureau work. The assertion is often made that a county agent would institute radical and expensive changes in the systems in use on every farm visited. Whenever a change is suggested on any farm, the successful practices of other farmers of the community are often used as a basis for such. Everything new is attempted on a small scale by means of test plots or demonstrations, thus reducing the expenses to the minimum. The introduction of Sudan grass, Freed's white corn, and African kafir may be used as illustrations. The latter is unprofitable here, while the other two will ultimately occupy a prominent place in our agricultural development.

"One of the most interesting activities of the county agent has been boys? and girls' club work. Some of the results secured by the boys and girls have been remarkable and are sure to have a lasting effect upon our future agriculture. An Allen county boy was the champion corn grower of the state in 1914, and one of our girls won the state garden championship in 1915. Let every one coöperate with the farm bureau in this work so that the interest may be more widespread in the future and the results more lasting in their cumulative effect.

"All plans of the farm bureau are made for at least a year ahead, and chards and fields poorly cared for many of them for a series of years. It is only through intelligent and careful planning that the work may become valuable in the future. Securing the following crop yields and other agricultural data has been made possible in many undesirable bugs." because of the hearty coöperation of all the farmers concerned."

THIRTY STUDENTS INSPECT BRANCH EXPERIMENT STATION

Get Valuable Information on Soil Type and Farm Management

Thirty students accompanied by Professors W. E. Grimes and R. I Throckmorton spent Friday, Saturday, and Sunday at the Fort Hays Branch Experiment station observing the work of the station and gathering soil samples. The students were members of the classes in soil survey and advanced farm management.

Friday the party was given an informal talk and welcome by Charles R. Weeks, superintendent of the station. Saturday morning was spent at the old fort and visiting the normal school. Farms of special interest struction of their hiding and nesting were inspected Saturday afternoon places. As land becomes more valuand interesting soil formations observed. Different types and samples of soils were taken and studied.

Short lectures were given by Professor Grimes and E. J. Montague, assistant at the station, on the subject of farm management, the management er, kingbird, butcherbird, warble, catof the experiment station being described to the students.

The party went over the experimental work of the station and received much information of interest. The students had meals at the station boarding place and slept on straw and tarpaulins in an elevator.

COLLEGE STUDENTS FORM CRACK MILITARY COMPANY

Volunteers from Cadet Corps to Get Special Training Three Times a Week

Volunteers are now reporting at the recruiting headquarters of O. B. Burtis, colonel of the cadet corps, who is acting recruiting officer for a crack company that is being organized at the Kansas State Agricultural college.

L. O. Matthews, first lieutenant of the United States army and commandant of the cadets, will have charge of the company. Officers of the cadet corps will drill as regular soldiers.

The company will assemble for the first time Monday, May 15. The time of drilling will be from 5 to 6 o'clock each week until the end of the term.

CHECK IT UP TO BOY

TEACH HIM KINDNESS TO BIRDS AND SOLVE PEST PROBLEM

When This Is Done Youngster Will Legislate Out of Existence Tomcat and the Feathers on Nellie's Hat, Says George O. Greene

Educate the boy to be kind to his bird friends and the Kansas insectproblem will be solved. When this is done he will of his own accord legislate out of existence the 22 caliberrifle, the tomcat and the bird on Nellie's hat, declares George O. Greene, specialist in horticulture, division of extension, Kansas State Agricultural college.

"If the boy knew his friends-their habits, what they eat, how they nest and all about them-there would then be an incentive for him to protect the bird population," says Mr. Greene. "The boy would then plant hedges, trees, and shrubs in the waste places on the farm so the bird could have a place to nest and hide. Instead of shooting robins, catbirds, and thrushes for eating cherries, he would plantmulberries which the birds like better and thus save his cherries. Both he and the bird would be benefited.

"Kansas has game laws enough to hang every man, boy, and cat in the state if they were enforced. Laws are made for the other fellow. It is a serious offense according to the statutes of Kansas to kill a song birdunless it is done by the tomcat method.

DAMAGE BY INSECTS IS HEAVY

"The farmers all know that more damage is done now by insects than was the case 20 or 30 years ago. Orfurnish plenty of food for insects. Public carriers convey infestation in one form or another. Seed and nursery stock, before the stringent horticultural laws went into effect, brought

There is another reason for the increase in numbers of native and introduced insects and that is the destruction of thousands of birds that feed upon them, points out Mr. Greene. A robin ate a cherry or spoiled the first apple in a new orchard. The orchardist forgot the spring song of the bird and went out after redbreast with a shotgun.

Perhaps the farmer's wife and daughter, to say nothing of his wife's sister in the city and other wives' sisters wanted a hat that looked like a bird's nest. The cuckoo, robin, flicker, woodpecker, redbird, and a host of other insect eating birds furnish the feathers.

BIRD HIDING PLACES DESTROYED

One cause for the decrease in the numbers of birds is the necessary deable for crops or pasture, brush and timber are cleared off and the birds must find other quarters.

The common fox squirrel destroys many of the eggs of insect eating birds such as the cuckoo, woodpecker, flickbird, thrush, and robin.

"Twenty-two caliber rifles are cheap and the boy must have something to shoot at even if the cuckoo did eat from 200 to 300 tent caterpillars every day," says Mr. Greene. "Why not let him shoot the squirrel?

"An Irishman who had tried one type of agriculture after another in his attempt to show that a kind providence alone, which had sent insects and plant diseases as a punishment, should be allowed to deal with them, finally gave it up with the statement that There's niver a crop but there's a boog or a warrum.' He blamed 'the good God who sint them.' Others blame their neighbors for growing the same crops which furnish food a plenty, or the railroads which carry insects or insect eggs from infested territory into uninfested sections."

The wood consumed in this country in the manufacture of paper amounts annually to 4,500,000 cords, and every year the demand for some substitute Monday, Wednesday, and Friday of grows more urgent.-Publishers' Guide.

DON'T LET BEES SWARM

NUMBER OF NEW COLONIES NO LONG-ER STANDARD OF SUCCESS

Comb Honey Producers Are Particularly Troubled by Spring Habits of Insects-Give Hives Plenty of Shade and Ventilation

When swarming is prevented, one is likely to have a better chance to increase the production in honey. Growth of colonies of bees by swarming does not necessarily result in increased honey production, according to Dr. J. H. Merrill, assistant professor of entomology in Kansas State Agricultural college.

Formerly the number of swarms that issued during the year formed the standard of success in bee keeping, points out Doctor Merrill. It is known now that one colony will produce more honey than will a colony which by swarming has been separated into two or more colonies. Thus, while swarming may be the natural way for increasing the number of bees, it is not desired by the bee keeper who is keeping bees to produce honey.

When queen cells having eggs or larvæ nearly ready to be sealed are found in the brood chamber it is an indication that swarming will be forthcoming. The night before swarming is to take place, a peculiar "quawking" or "piping" sound may be heard in the hive, explains the entomologist. This sound is made either by the old queen that is about to swarm or by the new queen that as yet has not emerged.

If it is a primary swarm it probably will issue between 10 o'clock in the morning and 3 o'clock in the afternoon. If it is an after swarm it may emerge at any time between 7 in the morning and 4 in the afternoon.

OVERCROWDING CAUSES SWARMING

Comb honey producers are troubled more by swarming than those engaged in the production of extracted honey. The hives used for extracted honey production offer more room than those used for the comb honey production. The conclusion is that overcrowding is one of the causes of swarming. When enough empty combs are provided in the hive and placed in such a way as to be easily accessible to the bees, overcrowding will be eliminated.

The hives should not be exposed to the sun during the heat of the day, according to Doctor Merrill. They loan fund now being established at should be sheltered by trees, placed in the Kansas State Agricultural college. an open shed, or protected by an improvised shelter of some sort. They should have plenty of ventilation. This may be accomplished by using a deep bottom board and blocking up the corners of the hive during hot ther contributions have been made by

When a large number of drone cells are noticed they should be cut out and replaced, if possible, with worker expected to reach \$4,000 in the near combs, or the frames from which the future. drone cells have been removed may be placed in the center of the hive. Here the bees are more apt to build worker cells. Full sheets of foundation encourage the building of worker cells.

SEVERAL MEANS OF PREVENTION

Cutting out the queen cells is probably the most common practice for preventing swarming. It is not, however, a dependable method, in the opinion of Doctor Merrill. Despite the preventive methods against swarming the bees may have the "swarming fever" so firmly fixed that nothing will prevent their issuing as swarms.

The danger of swarming may be the introduction of young queens, begin work promptly in the super and in Canton Christian college.

avoid crowding in the brooder chamber. When the super is properly manipulated so as to avoid crowding in the brooder chamber it will also help check smarming. Still another preventive method is to remove the combs of the brood and replace them with empty combs or sheets of foundation.

Some persons provide a large number of bees early so as to be ready for the harvest. During the rapid spring breeding they place an extra hive body on the first one. The queen is replaced if she seems unable to keep up the full strength of the colony. Queens from mothers whose colonies have not swarmed are used for this purpose.

When the honey flow begins a single hive body and a super with one or more bait sections are given each colony. Then they are examined frequently and the newly started queen cells are removed. If the colony is divided before swarming takes place, the troubles resulting from swarming are eliminated.

TO INCREASE BEE COLONIES

For securing increase of colonies one method is to lift the colony which is to be divided from its old stand and replace it with a hive containing frames or comb foundation. Then remove the center comb from the new hive and exchange it for a frame of brood from the old hive. Place the queen on the frame of brood in the new hive. See that no queen cells are left. Place a queen excluder on top of the new hive which contains the queen and empty combs, and then put the old hive on top of it.

After five days examine the combs carefully, advises Doctor Merrill, and if queen cells are started above the excluder, the old hive should be removed to a new location. If no queen cells are started the hive may be left until all the young larvæ are capped. At the end of 24 hours after removing the hive to new quarter, it should be provided with either a queen or a ripe

OPPORTUNITY TO KANSAS YOUNG MEN AND WOMEN

Loan Fund Started by President Waters Will Be Used to Help Needy and Deserving Students

There are young men and women in every Kansas community who would be glad to go to college if they could be sure of a loan in time of need. To provide for this is the purpose of the

The fund was started by President H. J. Waters, who volunteered to donate all the Kansas royalties from his textbook, "The Essentials of Agriculture," for the purpose stated. Fur-Governor Arthur Capper, and by alumni, members of the faculty, and citizens of Manhattan. The fund is

The money will be used to help needy and deserving students by means of small loans. The fund will be a re

WILL TEACH KANSAS FARM PLANS TO STUDENTS IN CHINA

Agricultural College to Send Man to Canton Institution

C. O. Levine, a graduate of the Kansas State Agricultural college in 1914 and now a farmer in Marshall county, will be sent to Canton Christian college at Canton, China, as a representative of the agricultural college.

Students and faculty members have minimized by proper manipulation. already subscribed \$600 which will go One of these methods of prevention is toward paying Mr. Levine's salary, and additional money is in sight. preferably from stock which has not Literary societies and fraternities are swarmed. Another means is the use preparing to cooperate by raising a of bait sections or extractor combs in fixed amount, and local churches are \$110.77; 1914, \$109.32; 1915, \$103.33; and the first super in the comb honey pro- assisting with the enterprise. Kansas 1916, \$101.63. duction. This will induce the bees to methods of agriculture will be taught

MILLET AS CATCH CROP

HEAVIEST PRODUCTION IS IN EAST ERN KANSAS, SAYS THOMPSON

Total Annual Acreage Is from 120,000 to 170,000-Best Time for Seeding Is Three Weeks After Corn Planting Date

If one crop fails in Kansas there is isually time to plant a catch crop. Millet is such a crop and is often successfully seeded as late as August 1 although the best results are obtained when it is planted three weeks later than regular corn planting time, points out G. E. Thompson, specialist in crops, division of extension, Kansas State Agricultural college.

"Each year from 120,000 to 170,000 acres are planted to millet in Kansas," states Mr. Thompson. "Contrary to general opinion the heaviest millet producing counties are in the eastern half of the state.

CROP MATURES QUICKLY

"The rate of seeding varies from 15 pounds per acre in the western part of the state to 30 pounds in the eastern part. Because the crop matures quickly and produces a medium amount of hay of a fair quality, millets have an important place in Kansas agriculture.

"Millet has an intensive root system and draws it food and water supply almost entirely from the surface foot of ground. This results in leaving the surface depleted in both plant food and moisture.

"The average feeder prefers many other feeds to millet. Estimated roughly, each 100 pounds of millet hay contains about half as much protein as the same amount of alfalfa hay. Millet contains about the same amount of protein as common prairie hay, or sometimes slightly more.

WHAT VARIETY TO GROW

"Hungarian millet is the variety generally preferred in eastern Kansas because experience has shown it to be better adapted to humid conditions than the other varieties. The quality of hay produced by it is first class.

"In the central and western part of the state either the common or the German millets are usually preferred. The German variety produces the most hay. It takes approximately two weeks longer to mature than common millet. The latter makes a finer and better quality of hay than the German."

WAR HAS NOT ADVANCED AMERICAN HORSE PRICES

Predicted Increase Has Failed to Material ize, Says Doctor McCampbell-Best Animals Bring Higher Figure

The European war has not caused picked. the advance in the price of horses that was freely predicted. Good horses command a slight increase, but the price of the average horse has fallen off to a sufficient extent to lower the horse market, according to Dr. C. W. McCampbell, assistant professor of hoe. animal husbandry in the Kansas State Agricultural college.

"A large number of horses have been shipped out of the country since the war began but they are as but a drop in the bucket in comparison with the available supply," says Doctor McCampbell. "It is an easy matter to make the people think that the war has created a heavy demand for horses."

The last annual report of the United States department of agriculture gives an interesting comparison of prices, points out Doctor McCampbell. The average prices for horses from 1911 to the present time have been as follows: 1911, \$111.46; 1912, \$105.94; 1913,

industry of the United States by de- bed to keep the plants clean.

creasing the importation of stallions," comments Doctor McCampbell. "Before the war many of the cull stallions raised in France were shipped to this country. These cull stallions were not allowed to stand in France and men made a business of buying up these scrubs, cutting off their tails, shipping them to America, and realizing a handsome profit."

WATERS WILL DEDICATE NEW RURAL HIGH SCHOOL

President of College to Officiate at Agenda Board Plans Modern Structure and Course of Study

Dr. H. J. Waters, president of the Kansas State Agricultural college, will make the dedicatory address the first week in September, at the \$10,000 rural high school building now under construction at Agenda, in Republic county.

The members of the board of education from Agenda were here this week to confer with H. L. Kent, principal of the school of agriculture, in regard to the course of study to be offered the ensuing year. Mr. Kent for some time has been interested in the plans for this modern school building and has made many valuable suggestions that will be put into actual practice.

The new building will be modern in every respect. It will be possible to convert the upper floor into an auditorium for public meetings. At the time of opening next September, a neighborhood picnic and dinner will be held in the basement rooms, which are well adapted for such occasions.

The course of study will provide for short course work for special students during the winter months. Agriculture, shop work, cooking, sewing and other home economics work, as well as English and mathematics, will be so arranged that by coming for three consecutive winters students may complete all of the work offered in these subjects.

It will be primarily a country school

CULTIVATE STRAWBERRY BEDS, ADVISES DICKENS

Start Hoeing at Once, and Begin Use of Cultivator Immediately After Fruit Is Picked

Thorough cultivation is advocated for strawberry beds by Albert Dickens, professor of horticulture in the Kansas State Agricultural college. It kills the weeds, conserves the moisture, and aërates the soil.

"Start hoeing immediately," advises Professor Dickens. "This will keep the weeds and grass under control. Work with the cultivator should start immediately after the fruit is

"The cultivator used should have more shovels than the ordinary one. A double row machine with seven shovels on the side is effective. To do the maximum amount of good the cultivator should be followed with a

"The field should be worked all season. A wet season, of course, requires more effort to keep the weeds in check. It is advisable to work until October 1.

"When the plants are set out it is well to run over them with a harrow tooth cultivator. Then follow the rest of the season with the cultivator. When planting always remove the blossoms."

About November 20 the beds should be mulched, according to Professor Dickens. Old slough grass is the best mulch to use. Old prairie hay may sometimes be used economically. Never use straw or any material with seeds in it, because the cost of cleaning the beds in the spring will more than offset the good done. In the early spring pull the straw back away "The war is aiding the horse raising from the plants but leave it on the

STORE WHEAT ON FARM

TO HOLD CROP THIS YEAR IS ESPE-CIALLY DESIRABLE

Dean Edward C. Johnson Calls Attention to Shortage of Freight Cars and Low Price Which Will Prevail in Early Threshing Season

"Ability to store the wheat crop on the farm will be perhaps of greater value to the farmers this year than ever before," says Edward C. Johnson, dean of extension in the Kansas State Agricultural college.

"For this there are two principal reasons-first, the shortage of freight cars, resulting from the congestion of freight on the Atlantic seaboard; second, the lower price per bushel during the early threshing season. This lower price necessarily results from inability to get transportation facilities, from the greater risk and hence greater margin taken by elevators to handle grain before it has gone through the sweating process, and from the fact that the whole grain trade knows that great quantities of wheat will be marketed during July, August, and September, whatever the price may be.

MOST WHEAT IS SOLD EARLY

"In a study of wheat marketing, Prof. L. A. Fitz of the agricultural college has found that two-thirds of Kansas grain is marketed in July, August, September, and October, and almost without exception prices are lower then than later in the year.

"The principal remedy for this condition is in the hands of the farmer himself and consists in the storing of grain on the farm for a short period to several months. This may be done by stacking the grain, by storing it in farm elevators, granaries, or metal bins, or by a combination of stacking first and storing in bins afterwards. Grain well stacked immediately after harvest does not germinate or become bleached, goes through the sweating process in the stack and not in the bin, and when threshed and placed on the market averages one to two grades better than if threshed out of the shock. This means 2 to 4 cents more per bushel. The difference is especially marked in a season of wet harvest. Even if bleached in the shock before stacking, the grain regains much of its original color in the stack."

CAUSES NO ACTUAL LOSS

The expense of stacking and threshing may be a little more than if the grain is threshed out of the shock, Dean Johnson admits. The fact, however, that many can use their labor more effectively over a period of stacking than over a shorter period of threshing out of the shock, that some can stack by exchange of neighborhood help and that less is charged per bushel for threshing out of the stack than out of the shock, more than counterbalance any loss that may result from the additional labor in

Storing the grain on the farm if it is threshed out of the shock also may be practiced. In investigations on the cost of such storage, Professor Fitz has found that the original cost of constructing granaries, bins, or tanks will range between 10 and 12 cents per bushel, whether these bins be of wood or metal. Unless the grain is put into these bins very dry, however, it may become bin burnt. This may result also in the regular sweating process which grain goes through after being threshed out of the shock. Chance for loss in this way is lessened if the grain is stored and handled in farm elevators where the farms or ranches are sufficiently large to justify the erection of an elevator or by shoveling, stirring, or otherwise ventilating the grain in the bins. As a rule, the preferable method of primary storage is stacking.

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SATURDAY, MAY 20, 1916

The man who returns home for his own funeral has come to light in St.

In the opinion of most citizens of the United States, La Ascencion is a most inappropriate place for Villa.

Boston has lost its Puritan manners The stenographers there have had to form a union to keep their employers from kissing them.

A HINDRANCE TO FARMING

Animal and vegetable pests are probably the greatest hindrance to successful farming. They are distributed everywhere, and without constant vigilance even the best farmer cannot hope to keep his crops free from them.

The annual loss from insects in the United States approximates a billion dollars, according to Dr. H. J. Waters. The same authority points out a yearly loss from potato blight of \$36,000,000; from grain smuts, of \$33,-000,000; from grain rusts, of \$20,000, 000; and from cotton wilt, of \$10,000, 000. And these are by no means all of the plant diseases.

Theoretically, at least, this loss is all preventable. Practically, it is not all preventable under present conditions, because there are some men who will take no precautionary measures. In a large proportion of cases, fortunately, the farmer who follows the right methods can keep the pests off his own farm, and he will, as he should, reap the due rewards. This will mean in every case a stimulus to better farming on the part of the whole community.

THE FARMER'S FRIENDS

Down in Louisiana there is a state board of education that is extremely solicitous for the welfare of the farmer -so solicitous, in fact, that according to news dispatches it has prohibited the reading of Mother Goose in the schools. The great boon which the Louisiana board has thus conferred on agriculture may not be apparent at first reading. It seems, however, that the board has discovered a Mother Goose rime which distinguishes between a gentleman and a farmer. Out with the whole book! Who dares to insult the sovereign farmer-and voter of Louisiana? "Breathes there a man with soul so dead" as not to resent, "with the last drop of his blood if necessary," any aspersion on the farmer of Louisiana, who is, first, last, and all the time "a gentlemanundehstand me, sah-a gentleman''?

It is not stated whether the board has taken any action toward improving the teaching of agriculture in the schools or toward making the schools otherwise contribute toward agricultural development. These are of slight importance, anyhow, when the dastardly attack of old Mother Goose on the freeborn citizens of the state is under consideration.

THRIFT-IN MONEY AND TIME

Several public schools systems, including those of Chicago and several Massachusetts cities, have established savings banks for pupils. The pupil's money, when it reaches a certain specified small sum, is deposited in one of the city banks to his personal account and draws interest.

The purpose of the plan is twofold. In the first place, it helps prevent the spending of money for tobacco and place, it helps develop thrift, and thrift is the quality which Americans perhaps stand most in need of.

That the plan works, is shown by the report of the Chicago schools. According to this report, in 20 months 17,726 children saved \$36,389.20. These boys and girls will grow up with the habit of saving. They will help substitute national thrift for national prodigality.

Plans to encourage the pupils to save money may well be adopted by any school. Of quite as much importance, however, is thrift in time. Perhaps some educator will come forward with a workable plan for teaching economy of time.

WHERE IS PECK'S BAD BOY?

George W. Peck, the author of Peck's Bad Boy," is dead. Is Peck's bad boy dead, too. We have not heard much of this youth in late years and he is either dead or his character has so changed that he is not recognized. And yet a generation ago Peck's bad boy came almost to be accepted-and was accepted by many-as the American boy. His idea of playful humor, which always involved pain to somebody else, was the American boy's idea of humor-and considering the vast number of the bad boy's readers it might have been the American man's idea too.

But in view of the many other changes that have taken place in American ideals and manners it is an encouraging hope that Peck's bad boy didn't die but lived and reformed. Probably he grew up and became a good citizen. As he grew he must have noted a general softening and refining of the manners that in his youth hailed with delight his escapades and never found the sauce too highly seasoned. He must have seen a variety of new avenues of activity open up before the American boy to divert his mind from corner grocery and livery stable associations. Better books and more easily accessible, the development of athletics, the Boy Scout movement opening up the whole of outdoors. No boy, no matter what his spirits, can grow up under these new influences and still take his fun in tying a dead cat to teacher's chair. Peck's bad boy himself, if he could have been offered his choice of going camping with the Boy Scouts or putting a rubber overshoe in the parlor stove, would have voted for the woods.

So Peck's bad boy isn't dead and isn't likely to die. But neither has he become Peck's good boy. He has simply changed with the changes in American life and manners and is now the American boy, full of the same fun and mischief, but with a better notion of how to indulge his spirits without losing caste in the company of gentlemen.-Kansas City Star.

CLEAN FOOD SHOPS

The food officials of many states are giving attention to the sanitary condition of country and city grocery stores, according to the officials engaged in the enforcement of the federal food and drug act, who recently have investigated the matter. The country store is both a collecting and a distributing agency of foods. It sells foods of many kinds to the farmers and at the same time buys from them for shipment to the city, butter, eggs, fruits, vegetables, poultry, and other products of the farm. If the shelves and counters are laden with dust, if cobwebs hang in every nook and corner, if flies, bugs, and vermin inhabit the place, the food products are certain to be more or less contaminated and likely to become dangerous to health. The reports from various year or two.

state officials indicate that many stores have been found in the past to be in such a condition.

A clean, light, well ventilated store attracts customers, and the progressive merchant needs no other incentive to keep his floor, shelves, and counter spotlessly clean, which includes screening from flies and the elimination of all other insects. Some storekeepers, however, seem to require prodding from food and health officials to inother articles which are distinctly duce them to maintain that degree of harmful to the young. In the second cleanliness which will insure that the food they handle will be free from contamination. Some of the states

supper.

many a man's career.

their fellows.

Fifty-two sheepskins are undergoing transformation in the drawing department into diplomas for as many bachelors of science.

The library is crowding out its neighbor, the reading-room for newspapers, and will soon compel its removal to other quarters, perhaps the north corridor.

The various departments of the experiment station have under observation more than 4,000 plats of growing crops, all recorded for exact data as to planting, culture, and results.

Mrs. Hood left last week for a long

The Hours After Supper

Danville (Ill.) Press

supper and bedtime afford small opportunity for education.

But they were sufficient for Lincoln and for Franklin and

for millions of men who, by turning these hours to advan-

tage through special studies, advanced themselves above

that is the stuff life is made of." Benjamin Franklin, who

said this, not only understood the value of time, but he

ascribes most business failures to what may be called "the

size of their scrap heaps." Nothing is at once more inex-

cusable and disastrous than waste, and the most disastrous

waste of all with the average man is waste of time. The

unused hours form the "scrap heap" that has wrecked

the end of every day and consider useless would, if rightly

used, give priceless results in increased efficiency, higher

service, and better pay. Ambition, resolve, effort, pur-

pose, persistency, confidence, courage, mental equipment,

and success may be manufactured out of this heap of waste

lishment is men. It avails a manufacturer but little to

have perfection itself in machinery if he finds it impossible

to get trained minds to control and drive it. Several big

concerns have organized schools in connection with their

plants; others have arranged with school boards to allow

students of suitable age to spend part of the time in the

shops; many are calling upon correspondence schools to

the opportunity it offers to young men willing to devote

spare time to special studies that fit them for particular

work. A great employer of skilled labor, of office man-

agers and salesmen says: "There are plenty of \$10,000

efficient people are not highly educated. The world calls

for educated people who are efficient and efficient people

who are educated. Most of all is needed education for

do not now know as the doing of what we do not now do.

Real education is not so much the learning of what we

Many highly educated people are inefficient and many

jobs. The trouble is to find the \$10,000 men."

The strikingly impressive thing about the situation is

prepare employes for advancement.

The most important item in the equipment of any estab-

time. Millions are doing it. Any man can who will.

That heap of waste which so many young men dump at

put a price on it that made others appreciate its worth.

"Dost thou love life? Then do not squander time, for

Bradstreet's in a summary of business conditions

OST careers are made or marred in the hours after

It may seem to some that the few hours between

"OR EVER THE EARTH WASSPREAD"

A. B. in the New York Tribune O to keep ever the joy! O to keep ever

the wonder! Not to have said, I have known; not to

have claimed, I have found! Naught save the blue sky above, naught but the brown earth under;

Nothing in seeing but sight, nothing in hearing but sound.

Or ever the earth was spread, wide came Beauty to being-

Never came rule and line, the spell of a scheme or plan,

When over the first green hills the first glad winds came fleeing

And the new, wild, mystic airs were sweet on the lips of man.

But oh, when the heart of a man would take the world and mould it!

And oh, when Beauty and Light are reft from the eyes of Youth! And the old, keen, careless joy is torn

from the hands that hold it By the Planners of Life-in-Earnest, the weary Seekers of Truth.

For Life, these say, is short; there's a

Purpose in our abiding.

A man is made for his work, and the lessons of grief and pain.

(And the mill bells call in the towns where the whirling wheels are hiding, And Sorrow and Sin are born, the children of Greed and Gain.)

But Progress and Trade are served, high words of a cruel glamor;

While Science keeps at its tasks, -for only the wise are fools; And a million women toil when the

looms of a nation clamor, And factory whistles sound where

childish hands are tools.

And a million men are slain when steel finds new, strange uses,-

Yet dividends are paid, and markets are there to gain;

For gold has never a stain, though won by curious ruses,

And men may walk in the world as partners of Death and Pain.

Yea, surely walk in the world-but not with the old glad wonder;

And the dawns unheeded come to the eyes where joy is dead;

For only the blue sky above and only the brown earth under Were meant for the heart of a man or

ever his ways were spread.

SUNFLOWERS

FASHION NOTE: White cotton hose should be made of silk.

Home is the place where people go when they are past going.

We favor the segregation of golf enthusiasts and amateur tenors.

Summer dresses are to be made low in the voice and high in the invoice.

We are perfectly willing for Mr. Villa to "pussyfoot" just as long as he wants to.

The man who believes that everything will turn out all right generally proves that it doesn't.

The kaiser announces that the Gernans have as good as won the war. London and Paris papers please copy.

A jitney driver in Manhattan has turned hero by capturing a runaway team. Old Dobbin is certainly getting his, nowadays.

Mrs. Gadding A. Bout says that if worst comes to worst she is sure that she will feel at home in any of the seven circles of the next world.

We view with considerable alarm the number of engagements that are being announced this spring. College engagements in particular should be provided with able-bodied reserve

The strangest thing about baseball is the fact that the umpire can't see half so well as the boob who spends his quiet moments brushing peanut hulls off his trousers on to your shoulders and down the back of your neck.

have effective sanitary laws which require frequent inspection of all establishments where food stuffs are put up, manufactured, or kept for sale. Other states depend upon the general provisions of pure food laws which require that foods shall be free from contamination. A few of the states lack either a law that will reach the unclean store nuisance, or means for enforcing the law.-United States Department of Agriculture.

efficiency, for service.

A QUARTER CENTURY AGO Items from The Industrialist of May 23, 1891

Target practice continues between

Commencement invitations will be ssued next week.

The rainfall for this week measures more than 31 inches. Professor Walters has prepared a

new plan of the grounds as they now appear, for the forthcoming catalogue. Julia Pearce, '90, is the owner of a new rowboat, to which the young carpenters are putting the finishing

W. E. Whaley, '86, resigns as principal of the Manhattan schools to

visit among friends all the way from Illinois to the Atlantic. Professor Hood hopes to join her during a part of the vacation, but at the present is keeping bachelor's hall. The mayor, the council, the street

committee, the street commissioner, and all who are in anywise responsible for the improved condition of the streets will accept the thanks of college people for the good work in grading between city and college.

Arizona Agricultural college wants Professor Popenoe at a salary of \$2,000, with house rent free. The Professor's love for his beautiful new home on the hill, and his admiration for Kansas in general, will serve to keep him here where his work is best known and appreciated.

Miss Waugh, as statistician for the class of '91, has been collecting the necessary statistics for presentation on the class day program. Each member of the class is expected to answer 64 questions, among which are such as "Your future occupation?" "Support while taking course?" "Are you glad you took this course rather than one at another Kansas institution?" "Are pursue special studies at Cornell for a you engaged-to be married, you know?"

Mrs. Myrtle (Oskins) Allis, '09, of Omaha, Nebr., spent a week visiting relatives in Manhattan recently.

Miss Marcia Turner, '06, is in charge of the domestic science work in Port Arthur, Tex., and is meeting with marked success.

Thomas G. Spring, '14, is closing his second successful year at Epworth, Iowa, as teacher of agriculture and science in Epworth college.

Miss Mary Dow, '12, for the past two years teacher of English in the Manhattan junior high school, is planning to enter Radcliffe college, Cambridge, Mass., in the fall.

Miss Bird E. Secrest, '92, of Randolph was a delegate to the annual meeting of the Eastern Star at Wichita last week. She spent a short time in Manhattan on her return trip.

Miss Anna Steckelburg, '14, has been re-elected to her position in Fairbury, Nebr. She and Miss Nellie Aberle, '12, are planning to spend commencement week at the college.

Miss Effie Carp, '15, has been reelected to teach home economics and normal training in the Spearville schools at an increase in salary. She expects to visit college at the close of her school this spring.

Edwin W. Pierce, '12, is now engaged in stock business with his father at Bison. He topped the market recently with a carload of hogs. He was here as a delegate to the convention of the Knights of Pythias.

Miss Florence Snell, '11, has been teaching home economics at Belleville this year and will go to the Atchison county high school to teach the same subject next year. Last year Miss Snell was home economics lecturer in the extension division of the college.

Dr. E. L. Morgan, '01, of Phillips burg, spent an hour on the campus Friday afternoon. This is the first time Doctor Morgan has visited the Kansas State Agricultural college since graduation. He was surprised at the number of changes that had been made.

Lloyd Cole, a former student of the college, and Mrs. Nannie (Carnahan) Cole, '12, are living at 628 North Market street, Wichita. Mr. Cole is in the employ of the Southwestern Electric company. "We are always glad to get our INDUSTRIALIST," writes Mrs. Cole, "and to hear what our old friends are doing since they left college."

BIRTHS

Born to Mr. George C. Helder and Mrs. Rose Edith (McDowell) Helder, '93, on May 12, a daughter, Ann.

Born to Lieutenant F. X. Gygax and Mrs. Stella (Ise) Gygax, '08, Glenwood Park, Conn., on May 8, a son.

COMMENCEMENT LUNCHEON

Luncheon will be served on commencement day in Nichols gymnasium by the Alumni association for the alumni, faculty, and invited guests.

The members of the newly graduated class will attend in a body as the guests of the association.

Tickets for alumni and faculty will be on sale at 50 cents each at the business office or may be obtained from Miss Ada Rice, room 28, old agricultural hall, or from Prof. L. A. Fitz, room 40, agricultural hall.

Reservations for places will not be held open later than June 10 except that a limited number of places will be reserved for nonresident alumni until Tuesday evening, June 13. Reservations may be made by mail, check to be sent with reservation.

DISINFECT POULTRY HOUSE AND PREVENT DISEASE LATER

Most of the Common Coal Tar Dips Are All Right, Says Harris

Disinfect the poultry houses now and thus eradicate vermin and ward or catalpa posts the next few years.off disease, is the advice of N. L. Har- Wichita Eagle.

farm, Kansas State Agricultural college.

"One will be safe in using almost any of the common coal tar dips that are on the market," says Mr. Harris. "The most inexpensive of these products are the common stock dips which should be mixed at home. Most of the poultry sprays on the market are nothing more than the stock dips all ready for use.

"The dropping boards and roosts should be cleaned at least every two weeks and sprayed with a disinfectant. In cold weather, of course, this does not have to be done so often."

The eggs of the mites hatch in from seven to 10 days, so in order to get rid of vermin it is necessary to follow the two week rule, points out Mr. Harris. Occasionally the entire house should be sprayed.

The spray is made up to a strength of 3 per cent, or three parts of coal tar dip to 97 parts of water. Common kerosene is also effective in getting rid of lice and mites. It is used in proportion of 97 parts kerosene to three parts of a coal tar preparation. The ordinary hand or bucket spray pump is used.

The most effective and most economical germicide at any time of the year is sunshine. The more that can be admitted to the house the better.

HAVE YELLOW ROOMS AND GET RID OF YOUR GROUCH

Miss Holman Tells How Colors Affect Men tal State of Persons in Home-Blue for Coolness

If you are a pessimist, yellow decorations in your home will help dispel the grouch, according to Miss Araminta Holman, instructor in color and design in the agricultural college.

to make it appear more roomy, furnish it in blue," says Miss Holman. 'Blue is a receding, cool color. A bit of yellow used in decorating a room finished in blue adds cheeriness, making the room appear cool, bright, and pleasant. Green, a combination of blue and yellow, is a soothing, restful color, and may well be used on the walls and floor if grayed.

"Red is a warm, exciting, and advancing color. A room furnished in red appears smaller than its actual size. When combined with yellow it gives both warmth and cheer, and is the basis for the rich tones of brown and tan. Light tones suggest youth, frivolity, informality, and femininity, while dark tones suggest strength, dignity, repose, and masculinity.

"A girl wants her bedroom finished in pretty, light, delicate tints. Men's rooms and such rooms as the library are finished in darker tones.

subdued tones so that the objects within will show up more effectively. The walls should be one half grayed so that they will keep their place as backgrounds, allowing the other objects to stand out to a better advantage. Bright colors on the wall, claiming more attention than the hostess, are impertinent."

TEDDY'S HAT HAS PLACE IN COLLEGE MILITARY EXHIBIT

It's Not the One He Threw into the Ring,

Relics of the various wars and insurrections in which the United States has been involved since 1861 are arranged on the shelves in the office of L. O. Matthews, commandant of the cadet corps in the Kansas State Agricultural college.

A hat worn by Colonel Roosevelt in the Santiago campaign of 1898, a la n tern from the battleship Maine, knives and curiosities from China, weapons of the Filipinos, and various munitions of past wars are included in the collection.

There is a growing demand for small posts, which can be shipped in large numbers in a car, for the western country fencing. Any farmer can be building up a good side income by raising some two or three inch hedge

NEWSPAPER HAS CRITICS BESTED, SAYS LANGUAGE PROFESSOR

Mistakes Occur in Hastily Written and Printed Portions of Periodicals, Declares Conover-Freshness and Originality Are Qualities to Imitate

Newspaper English is superior to that used by the average person. The newspaper is an unconscious but potent teacher of English, asserts Robert W. Conover, assistant professor of the English language in the Kansas State Agricultural college.

"'Newspaper English," "says Professor Conover, "is a phrase repeated with parrot like inflection by persons who have accepted it as an epithet applicable to any mistake in English that occurs in a newspaper. The term should not include in its meaning common mistakes in the use of language. It was meant originally to describe a certain peculiarity in the use of language not restricted to newspapers, but reaching its worst and most absurd development in them. After this absurd, high sounding diction came into the open, its violation of good taste was recognized and it has now disappeared except from the most provincial papers.

"Within recent years the schools of journalism and courses in journalism have come as the result of the feeling among older newspaper men that training for the profession of journalism should be put upon a professional

PIONEERS OF THE PRESS

"The pioneer days produced some mighty men, both as editors and as contributors. One does not need to mention Horace Greely and the New York Tribune, Joseph Pulitze and the "If you have a small room and want World, George W. Childs of the Philadelphia Public Ledger, or the Kansas City Star and its long time owner, W R. Nelson. Nor do we need to be re minded of William Cullen Bryant's editorship of the New York Evening

> "Among American writers trained in the old apprentice school of journalism are William Dean Howells, Stephen Crane, and Rex Beach. Ex-President Taft was once a reporter as were James Gordon Bennett, founder of the New York Herald, and Whitelaw Reid who later owned the Tribune. Mr. Bryan and the Commoner will occur to some, and Mr. Roosevelt is at least a famous maker of news.

"It is in the more hastily written and hastily printed portions of the newspaper that mistakes in English occur most frequently. News is got "The background of a room," says fans returning from a game uptown mately \$1,400. Miss Holman, "should be in rather may read not only the final score, but the description of the game by innings when the subway or the elevated in a taxi buying a newspaper containing an account of their own elopement. In this case, perhaps one of them had been thoughtful enough to send the story in beforehand."

HEADS IRRITATE PURISTS

Newspaper headings continue to be a source of irritation to the purist, Mr. Conover states. He mentions such a head as "First Child Born in County Dies," the child in question being an aged woman. Sometimes the heads, he points out, are quite misleading. "Pope Advises Working Men," refers not to the head of the Roman Catholic church, but to the head of the Pope Manufacturing company. The mistakes are often excusable, however, he admits, for the problem is a difficult one.

"Editorials, less hastily written, in scholarship and in expression. They aim to be both timely and interesting and to influence public opinion in regard to politics, war, business, education, and philanthropy.

English. This is shown in clear, con- in the county high school next year.

ris, superintendent of the poultry PRESS TEACHES ENGLISH cise, and honest use of words; in sim-TREES NEED GOOD ROOTS pler and more direct sentences, and in conscious attention to the higher or more difficult elements of style.

NEWSPAPER INSISTS ON SIMPLICITY

"The newspaper has a place as an unconscious but potent teacher of English. The first of its good qualities in this respect is its departure from stilted phraseology. The value of simplicity is constantly insisted upon. William Cullen Bryant said: 'Be simple and unaffected. Never use a long word where a short one will do. Call a spade by its name, not a well known oblong instrument of manual labor. Let a home be a home and not a residence. Speak of a place and not of a locality. Elegance of language may not be in the power of us all, but simplicity and straightforwardness are.'

"The work of many writers may be cited as examples of this kind of clear, incisive prose. That of Rudyard Kipling will serve as one.

"Another thing that is now insisted upon is freshness and originality to take the place of the superabundance of conventional terms which almost all writers are likely to use. In the best papers not all the business men mentioned are 'prominent.' Not every infant is 'a babe at its mother's breast.' Young women are not always 'society girls' or 'pretty' or both, and most startling, not all \$5 bills are 'crisp.'

In the modern newspaper, sentence structure also receives careful consideration, points out Professor Conover. The short sentence is especially effective in stories of intense excitement.

The complex sentence, on the other hand, is not to be discarded. It has its place in the efficient marshalling of facts, but whatever type of sentence is used, the writer practices rigid economy of space, time, and attention, always remembering that dulness is a crime, punishable either by the rejection of the story or by a loss of interest which soon means the loss of readers.

BUREAU DOES GOOD WORK FOR LINN COUNTY FARMERS

One Week's Efforts Result in Valuable Services to Members

In one week's work, the Linn county farm bureau through the county agent, C. K. Peck, performed especially valuable service for its members.

One member desired to purchase some good milk cows. The county agent tested seven head. Five were found good enough to purchase and were taken. The other two were rejected. During the same week another bureau member was helped to find and purchase eight head of good red polled out with a rapidity which seems al- cattle-some of them registered. The most magical. In New York baseball total of these purchases was approxi-

Hog cholera was located in the county and the agent secured 3,000 cubic centimeters of serum for vaccitakes them downtown. A recent issue nating 98 head. The serum was seof Judge shows a picture of a couple cured in five hours after the agent was notified and although a number of the hogs had fever when treated, only one was lost. In addition to this work at a profit on the market. As long as the agent helped the local veterinarian stunted, immature pullets are kept, secure serum for treating a number of other cases.

> The quick suppression of cholera outbreaks may mean the saving of thousands of dollars and the securing of purebred live stock means better animals and greater profits.

HIGH SCHOOL AND COLLEGE CO-OPERATE IN FARM SURVEY

P. E. McNall Will Conduct Investigation in Reno County with I ocal Assistance

P. E. McNall, of the extension division of the college, will leave the first week of June for Nickerson, where, with the coöperation of the county high continue to hold an important place in school, he will conduct a farm survey the newspaper," says Professor Con- of Reno county. This is the first farm over. "They are often excellent both survey to be conducted at the suggestion of a Kansas school board, according to Mr. McNall.

L. C. Christy, in charge of the department of agriculture at the Reno County High school, will assist Mr. "It may be said that there has been McNall and the data collected will be Persons seated for the dinner should steady improvement in newspaper used in the course of farm management not have to play peek-a-boo around a

SO THEY SHOULD BE TRANSPLANTED WHEN YEAR OLD

Move Nursery Stock Frequently Until It Is Ready to be Set Out Permanently, Advise Horticulturists-Stimu-

late Garden Plants Also

Forest tree seedlings should be transplanted at the age of 1 year so that they may develop a compact root system, according to the department of horticulture in the Kansas State Agricultural college.

Young trees make a large development of roots in proportion to the rest of the plant. In many species the root system develops two or three times the length of the stem. Transplanting at the end of a year permits the roots to be shortened without danger to the plant. This results in developing a greater number of lateral roots.

Oaks, pecans, and other trees that make a strong, heavy taproot must be transplanted when 1 year old if they are to be transplanted successfully later. Nursery stock should be transplanted frequently until the plants reach sufficient size for permanent planting.

DON'T FIGURE ON DROUTH

A nursery tree that has been transplanted is to be preferred to one that has never been disturbed. The tree that nature grows usually stands more drouth than those transplanted. The man growing such plants in a garden, however, must not figure on drouth. He must provide conditions that will insure sufficient moisture and plant food.

Garden plants such as cauliflower, cabbage, celery, and peppers are better able to utilize plant food in the soil if transplanted when young and forced to make a spreading root system. By stimulating the root system through careful transplanting, a greater crop yield will be obtained.

WEIGHT AND QUALITY ARE DETERMINING EGG PRICES

Size of Product Is Big Factor in Profit to Poultrymen

"The produce dealers of Kansas have awakened to the fact that eggs of large size and uniform quality are the most profitable to handle," says Ross M. Sherwood, poultry specialist of the division of extension, Kansas State Agricultural college.

The price of eggs is now determined by their weight and quality. Eggs of large size, uniformly fresh, and possessing perfect shells are styled firsts, and are quoted higher than small dirty eggs of doubtful age, which are designated as seconds.

Large eggs are usually produced by large hens and the average poultryman will find it profitable to increase the size of his birds by setting large eggs and selecting for his laving flock only large individuals. It will probably be necessary in most cases to produce larger flocks in order that more rigorous selection may be practiced. The culls, however, can be sold small, imperfect eggs will result.

DON'T USE WHOLE GARDEN TO DECORATE YOUR TABLE

People Don't Like to Play Peek-a-boo at Dinner, Says Miss Holman

A few flowers are in good taste and add charm to the dining table but the whole greenhouse or garden should not be used. They shouldn't fairly scream out for attention, asserts Miss Araminta Holman, instructor in home art in the agricultural college.

"Decorations should always add beauty to the article which they decorate," says Miss Holman. "The flowers that are dainty, delicate, and sparingly used are attractive on the table in the dining room. A small fern is appropriate. The flowers are of less importance than the food, the dishes, and the silver. One or two flowers are usually enough, properly arranged.

"Their tops should not be higher than the tallest dish on the table. tall vase of flowers."

REDUCE KANSAS CROP VALUES MIL LIONS OF DOLLARS ANNUALLY

Plant Pathologist Describes Costly Dis eases and Tells of Methods of Prevention-How Fungi Spread-Heaviest Damage Is to Wheat and Corn

Smuts affecting grain and forage crops cause an annual loss to Kansas farmers of millions of dollars, according to a Kansas Agricultural Experiment station bulletin by L. E. Melchers, assistant plant pathologist. The estimated loss for 1914 alone was nearly \$8,000,000.

The most common and serious diseases affecting the grain and forage crops of Kansas are the so-called smuts, points out Mr. Melchers. These diseases are more or less familiar to most farmers, since they occur in all parts of the state wherever such crops as wheat, barley, oats, corn, sorghum, and millet are grown. Their importance in the regions where susceptible crops are raised is not generally known, but the loss sustained is enormous when carefully estimated. Collectively they total millions of dollars to the entire state, and individually they appreciably reduce the farmers margin of profits.

DISEASED PLANTS DON'T PRODUCE

The loss due to smut in any particular field is not difficult to estimate. Generally speaking, a diseased plant does not produce seed or grain, hence the reduction in yield for any field can be estimated by the percentage of diseased plants which it contains. The degree of loss, however, varies according to crop, season, and market conditions.

The smut loss in 1914 was divided as follows: wheat, \$3,022,875; corn, \$3,000,000; oats, \$1,422,423; barley, \$80,974; kafir, \$392,766; broom corn, \$12,045; and millet, \$12,076.

Smut diseases are brought about by minute parasitic plants, known as fungi, explains Mr. Melchers. As a rule they enter the plant by getting into the young developing ovary during the flowering stage, or else they gain entrance to the plant in the seedling stage and develop within the tissues of their hosts. As long as the fungus remains within the tissues there is nothing externally visible by which its presence can be detected. Hence it is impossible to determine from outside appearances whether a plant is infected until it approaches heading time. When this stage is reached the diseased individuals can readily be noticed.

DIFFERENT FUNGI CAUSE SMUT

As the plants mature and begin to or seeds which have been transformed please the housewife. She complains into a more or less black, powdery because the milk is not good and dust. This black, sooty, powdery mass, which is characteristic of this group of fungi, is composed of an infinite number of microscopic reproductive bodies of the fungus, known as spores. These little bodies perpetuate the disease from year to year, either by clinging to the outside of the seed and infecting the seedling when the seed germinates, or by infecting the interior of the seed at the outset.

The various smut diseases of plants are caused by different kinds of smuts. They affect the cereals and other plants in various ways, but each different smut disease is produced by a specific fungus. For example, the spores of the stinking smut of wheat can not produce the loose smut of wheat or the smuts of barley. A given smut fungus will cause only its own specific disease. Clean wheat seed could, therefore, be contaminated with oat smut spores, but would not take the oat smut disease, and wheat smut would not result from such a contamination.

There are 10 important smut diseases in Kansas. They are divided into three groups.

MANY DISEASES CONTROLLED

Corn smut and head smut of the sor-On the other hand, according to Mr. Melchers, treatment of the seed for last two years.

SMUTS CAUSE BIG LOSS kernel smut of sorghums, stinking GRANGERS AT COLLEGE smut of wheat, smut of oats, covered smut of barley, and smut of millet, is an effective means of control.

The smut spores are scattered at harvesting time, chiefly in threshing, and are further disseminated by means of contaminated machinery, sacks, and bins. If contaminated seed is planted the following year, the adhering smut spores germinate simultaneously with the sprouting seed. The fungus penetrates the tissues of the grain plantlet, keeping pace with its growth until heading time approaches. A mass of smut or "smut balls" occurs in place of each kernel. The spores comprising these masses are scattered by various agencies, and cling to the outside of healthy seed. When this seed is planted the same series of events is repeated.

This group of smuts is controlled by disinfecting the surfaces of the seed.

Loose smuts of wheat and barley may also be prevented by treating the seed, but by a special kind of treatment. The spores producing these diseases are not associated with the surface of the seed; that is, the spores do not cling to the outside of the seed, but infection exists inside the germ, or embryo, of the seed.

EMPLOY COMMON SENSE IN CARING FOR MILK

Inspection of Bottles by Cats and Dogs Is Not Desirable, Says Expert

Do not leave the milk on the back oorch for the inspection of cats and dogs and the development of bacteria, is the advice of Miss Alice Poulter, specialist in home economics, division of extension, Kansas State Agricultural college. With the approach of summer weather special care is neces-

"Milk delivered at the town home usually is placed on the steps of the back porch or in some equally convenient place. It is no uncommon thing for a bottle of milk to remain there in the sunshine until 10 or 11 o'clock in the morning before it is removed to the ice box or the cellar. During that time the neighbors' dogs and all the alley cats of the community have probably taken advantage of the opportunity to investigate the style of cap and to test the thoroughness of sealing, and have disposed of any accessible portion.

"When milk is allowed to stand for a few hours in the sunshine the temperature usually is raised several degrees and the condition is ideal for the development of bacteria. In the three or four hours required to cool the milk after it has been placed on ice there is ample time for many changes form seed those affected produce heads to take place. These changes do not blames the producer."

INTEREST IN PUREBRED POULTRY GROWS RAPIDLY

Demand for Eggs and Birds Shows Con stant Increase-College Preparing Directory

That there is much interest in the breeding of purebred poultry is shown by the constantly increasing demand for eggs from purebred flocks and for purebred cockerels, according to Ross M. Sherwood, poultry specialist in the extension division of the Kansas State Agricultural college.

"In some sections," says Mr. Sherwood, "the market poultry buyers are encouraging the purebred business by paying a premium for coops of purebred fowls of uniform quality. Many people do not know where to secure the purebred stock and eggs which they desire and often do not succeed in locating any."

For this reason the extension division of the college is preparing a poultry breeders' directory, and every breeder of purebred poultry in Kansas is invited to send in his name and address and the varieties of purebred poultry he is breeding to be placed in ghums cannot be controlled by treating this directory free of charge. Those the seed, since the spores of the smut who show their poultry at poultry live over in the soil and in manure. shows should also include the shows attended and prizes won during the

MEMBERS OF AGRICULTURAL BODY INSPECT EXPERIMENTAL FARM

Guests of Institution to Number of 250 Come from Clay, Geary, Dickinson, and Riley Counties-Event Will Be Repeated Annually

More than 250 grange members were guests of the Kansas State Agricultural college at the experimental farm Wednesday.

The college extended invitations to members of two granges in Clay county, one in Geary county, one in Dickinson county, and the Manhattan grange. This is the second year such an invitation has been given and the event is expected to become an annual

A big picnic dinner, the feature of the day, was supplied by the well filled baskets brought by the grangers. The lawn in front of the farm home furnished an excellent place to serve the

STATE GRANGE MASTER SPEAKS

At the close of the repast, an address of welcome was given by Dr. J. T. Willard, dean of the division of general science. A. P. Reardon of McLouth, state grange master, and Mrs. Reardon made addresses. W.T. Dickson of Carbondale, chairman of the state executive committee, also made an address on the relation of the college to the grange. L. E. Call, professor of agronomy, spoke briefly of the work conducted on the farm.

The visitors spent the rest of the day in looking over the farm. The ex periments were all carefully explained by members of the staff of the agronomy department.

MANY COME FROM WAKEFIELD

The Gatesville grange from northeast of Wakefield sent a delegation of 70 persons, who came in 10 automobiles. The Golden Ridge grange from southwest of Wakefield sent a delegation of three automobile loads.

Grange officers present were A. P Reardon, state grange master, and Mrs. Reardon; W. T. Dickson, chair man of the state executive committee; E. W. Westgate, past master, of Manhattan; L. S. Frey, past state lecturer, of Manhattan; and Mrs. Martha Em mons, ceres, of Manhattan. The other members present were from the Manhattan grange.

KICKING COW CAN BE CURED BY USE OF RIGHT METHODS

Herdsman Tells How to Overcome Trou blesome Habit in Milk Animal

Care and patience will do much to cure the kicking cow, in the opinion of Leslie Ross, herdsman for the animal husbandry department of the Kansas State Agricultural college.

"The kicking cow is easily cured by the proper methods," says Mr. Ross. "To cure the offending animal take a rope with a loop in one end of it or a trunk strap and pass it around the body of the cow. Draw it tight. The cow usually will jump a little at first, but when she finds she cannot get out of the rope she will stand-and cannot

"If this method causes the cow to strap behind the udder and draw it up in the same manner. With some cows this cannot be done because of the shape of the udder.

"Another method is to hobble the cow by passing the rope around each leg behind the udder, and tying just above the hocks. This is rather dangerous for the man tying the rope.

"After the preventive measure has been repeated a few times the cow will stand readily to be milked."

HORTICULTURAL SCRAP HEAP AWAITS THE NON-SPRAYER

Fight Pests at Their First Appearance, Urges George O. Greene

spray his orchard is about ready for the horticultural scrap heap, in the opinion of George O. Greene, specialist in horticulture, division of extension, Kansas State Agricultural Gunn, Great Bend; Robert K. Piercollege.

"Kansas has nearly the whole list of insects and fungous diseases in her orchards right now," says Mr. Greene. "These can be kept in check easily by the proper use of various spray materials. Spray early-do not wait until the insect pests or diseases are beyond control. Spraying is a pre-

ventive and not a cure. "Fight pests at their first appearance. Use the right spray for the right pest at the proper time. That is, use fungicides for fungi and insecticides for insects.

"Bordeaux mixture is preferred as an effective fungicide, and arsenate of lead is the most reliable insecticide. The former consists of three pounds of copper sulphate and four pounds of lime added to 50 gallons of water. Arsenate of lead is prepared commercially and should be used at the rate of one pound of powder to two pounds of paste added to 50 gallons of water."

SPRAY POTATO VINES TO KILL COLORADO BEETLE

Insect Is Destructive but Not Hard to Control-What Materials to Use

Spraying potato vines for the purpose of killing Colorado beetles should be done as soon as the work of the insects is noticed, asserts George A. Dean, professor of entomology in the Kansas State Agricultural college.

"This destructive insect is not hard to control," says Professor Dean. 'One part of Paris green mixed with 20 to 30 parts of air slaked lime or flour and used as a dust spray affords the best results on young plants. It should be used, when the dew is on, by means of powder guns or dust spray machines.

"The Paris green spray, prepared by mixing one pound of Paris green with 75 to 125 gallons of water and adding one pound of quicklime to the mixture, makes an effective spray. This spray will burn vines if the quicklime is omitted.

"For the proper mixing and application of this spray, a bucket pump or knapsack sprayer of good quality is sufficient for use in small gardens, but on a large scale a potato sprayer to be drawn by horses through the rows of plants is necessary.

"Arsenate of lead serves the same purpose as Paris green, one pound combined with 15 to 20 gallons of water, being more adhesive. It sticks more firmly to the leafage, and is much less likely to produce scorching than the Paris green spray.

"Cleaning up the vines and plowing potato land in the fall after the crop has been harvested will aid in reducing the number of hibernating beetles."

MILLING SHORT COURSE

Missouri and Kansas Men Enrol for Work in College Laboratories-Study Continues Next Week

The fourth annual short course in wheat and flour testing, offered by the department of milling industry of the Kansas State Agricultural college, opened Monday and will close Saturday, May 27. It has attracted men give bloody milk, place the rope or interested in milling problems from both Missouri and Kansas.

The work in the short course consists of a course of lectures with discussions and laboratory practice. Instruction is being given in methods for determining absorption, glutenboth wet and dry-gliadin, moisture, ash, total protein and acidity. The laboratory practice is given in the model mill and laboratory of the department.

Representatives of mills who are taking the short course are furnishing 10-pound samples of their flour for laboratory tests-also a quart supply of the wheat from which the flour is

Among those enrolled for the short The man who does not have time to course in milling are A. Grant, Denton, Tex.; C. M. Parks, Versailles, Mo.; Fred Pinkall, Marquette, Kan.; Sidney R. Swaller, Clay Center; James W. Bonham, Manhattan; R. Ray son, Kansas City, Mo.

A DOLLAR PER COMMA

IT COST SOME MONEY TO GET GER-MAN SPEECH ACROSS SEA

E. W. Wingart Tells Journalism Students of Work and Purposes of Associated Press-As in All Newspaper Work, Accuracy Is First Requisite

It cost \$1 to flash by wireless to this country every comma in the speech of Chancellor von Bethmann Hollweg before the German Reichstag last April, according to E. W. Wingart, Topeka correspondent of the Associated Press, who spoke to the students in industrial journalism Tuesday. The chancellor's speech appeared in the papers of this country and people read it at a cost of an inappreciable fraction of a

A difference in aim between a news gathering association and a newspaper, seldom recognized by laymen, was made clear by Mr. Wingart.

"Three fundamental aims of a newspaper are to inform, to influence, and to entertain its readers," declared Mr. Wingart. "The Associated Press has but one aim-to inform newspapers of world news and to do it accurately, quickly, and adequately, in a nonpartisan, non-political, and non-sectarian manner."

COVERS WIDE TERRITORY

The speaker described in detail the extent and organization of the Associated Press, which is one of the largest news gathering associations in the world.

The organization is a composite of 908 newspapers in the United States, 118 foreign correspondents, 11 foreign bureaus, and an affiliation with the news gathering organizations in Eu-

It reaches throughout the United States, Alaska, the Hawaiian islands. the Philippines, the islands of the Caribbean sea, Mexico, the Central American states, all foreign countries, and, by an exchange with the Canadian Press, the British possessions of this continent. Every member has equal rights with every other member and each member paper is obliged to furnish the association with all the news furnished in its territory.

NEWS JUDGMENT BEST ASSET

"News judgment is the filing editor's most valuable asset," asserted Mr. Wingart. "An item of interest in one part of the country may be of no value to the newspaper readers in another. For instance, a story of interest to the fishing industry might be received at Kansas City from the Atlantic coast, by way of New York and Chicago. To Galveston and gulf coast points where the fishing industry is of considerable importance, this particular item would be of value and it would be forwarded from Kansas City DRAWS FROM TWO STATES promptly on the wire reaching those points.

"On another wire serving a circuit of Kansas towns, where the fishing industry is about as important as the wheat threshing industry in arctic regions, the story would be of so little value that it would be cut down by the editor to a few words, if sent at

HOW STORY IS RELAYED

"In case a story of paramount interest over the entire world 'breaks,' the operators use what is known as the 'visible relay' system. While one operator is receiving the message on his typewriter, another reads the story over his shoulder and sends the story. In this way, not a second of time is lost and a story sent from New York reaches San Francisco and Galveston almost instantaneously."

The speaker termed accuracy the first word in the "A. P." service. "When you consider that every

minute of the day and night everywhere in the world there are men and newspapers working at feverish speed to get the important news sent out to newspapers in all parts of the country," said Mr. Wingart, "the tremendous work carries a romance of achievement that few people realize when they pick up the daily paper and read of events that happened in Europe only a few minutes before they read the words telling about it."

STARVE OUT GREEN BUG

FARMERS OF SOUTHERN KANSAS FACE SERIOUS PROBLEM

Crops Should Not Be Replanted Now-Pro fessor L. E. Call of Agronomy Department Gives Valuaable Advice

Southern Kansas farmers in districts where green bugs have invaded the fields, and the oats have been ruined, are uged to starve out the pests by pasturing, and subsequently plant fields to feterita or Sudan grass.

L. E. Call, professor of agronomy in the Kansas State Agricultural college, who has investigated conditions, reports that the ravages by the insects have been severe in Sumner, Harper, to some extent in Cowley county, and in north central Oklahoma. Oats practically have been destroyed in the portion of Oklahoma mentioned, and in the eastern and southern parts of Sumner county.

Wheat has been damaged but not destroyed. Even the corn has been attacked, and by a sufficient number of bugs to ruin the crop. The insects were found as far north as Salina, but not in large enough numbers to cause alarm. Serious infestation is not expected to become general in Kansas unless dry weather should prevail. Heavy rains in southern Kansas would tend to destroy the bugs and benefit the crops.

"Replanting now is simply adding feed for the green bugs," says Professor Call. "Where oats have been damaged beyond recovery, pasture the fields and thus reduce the available food supply for the pests. After this is done the ground either should be plowed or listed, depending upon the crop to be planted later. It is preferable to plow as this will turn under green bugs, and will leave no food for additional insects.

DO NOT REPLANT NOW

condition but no crop should be planted until the bugs have been starved out or have been brought under control by the parasitic insects that usually hold the green bugs in check. When the bugs have disappeared it thinned when they are about the size will be too late to plant corn or such of hickory nuts. They should be late maturing sorghums as kafir. It probably will be advisable to depend

late as the middle of June and mature saved by thinning may be used for a crop of grain in a normal season. the enlargement of the fruit that is Sudan grass could be planted July 1 left on the tree, as well as for the or even two weeks later. Plant as formation of fruit buds for the followsoon as possible after the disappear- ing season." ance of the green bug.

"Sudan grass could be planted in rows and cultivated or could be drilled with a grain drill. If in rows, four to five pounds of seed to the acre should be used; if drilled 15 to 20 pounds. If Sudan grass is planted for hay it would be preferable to drill the crop, while if for seed it should be planted in rows and cultivated."

Information in regard to available seed will be supplied upon request by the agronomy department of the Kansas State Agricultural college.

PUMPKINS ARE ADVOCATED AS WINTER FEED FOR PIGS

They Are Good Substitute for Roots, Says Ray A. Gatewood

Pumpkins and squashes form an appetizing ration for fall and winter for young pigs and brood sows, asserts Ray A. Gatewood, instructor in ness outside of the home, high shoes animal husbandry, Kansas State Agricultural college. Plant seed now is does not soil easily with rain and his advice.

Hogs that are being fed for fattening purposes should receive all the low shoes, thin stockings, light dressare given the pumpkins, points out on bright and warm days."

Mr. Gatewood. When feeding pumpkins, most of the seeds should be removed because when they are fed in large quantities with the concentrates, they have an injurious effect on the urinary organs.

Pumpkins will take the place of roots in winter and form a succulent food. Their feeding value is not as high as that of turnips or mangels. Pumpkins, like wheat bran, are useful adjuncts to the more concentrated kinds of foods but cannot, if fed alone, be depended upon for fattening. Pumpkins form an excellent food for brood sows. The seeds are rich in protein and oil and will take the place of corn in ration.

THINNING OF APPLES SHOULD BE PRACTICED

Process of Elimination Tends to Improve Quality of Fruit, Points Out F. S. Merrill

Thinning of apples should be practiced in Kansas, in the opinion of F. S. Merrill, assistant in horticulture, Kansas State Agricultural college.

"Although thinning has not been done extensively in this state, it has been definitely proved in other states that it is a paying proposition," says Mr. Merrill. "This operation not only results in a much finer product, but it is also a means of destroying insect infested and diseased fruits.

"Apples from trees that have been thinned are more uniform in size, shape, and color than those from unthinned trees. The cost of thinning fruit has been a big objection to the operation, but all of the fruit must be picked sooner or later, and it does not cost very much more to pick the apples early in the season, than to pick them later. Much fruit which is not worth picking in the fall might have been worth the labor if the trees had been thinned in early summerespecially in years of little rainfall.

"There are two general methods of "The ground should be kept in good thinning apples. One is by pruning off the superfluous branches. The other is the direct picking of the apples. The picking method is done in essentially the same way that the apples are harvested. Apples may be thinned to a distance of six inches.

"A large percentage of plant food upon early maturing crops such as is used for the development of seed, feterita for grain and Sudan grass for and it takes nearly as much food to development of rural life. Taken in develop a small apple as it does for a dollars and cents, it is the consumer "Feterita could be planted safely as large one. The plant food that is that pays the bad roads tax."

BRIGHT COLORS HELP DISPEL GLOOM ON GRAY, RAINY DAYS

Dull Grays, Blues, and Greens Were Made for Sunny Hours

Bright colored dresses add cheer to the surroundings on rainy days. A bright tie worn on a gray, rainy day is appropriate.

"On a rainy day," says Miss Florence Hunt, assistant in domestic art in the Kansas State Agricultural college, "the housewife will find that she adds brightness if she wears a bit of bright color in her costume. She is supplying the cheer that usually nature supplies through sunshine. Red is a color of warmth and looks well on rainy days. Dull grays, blues, and greens were made for sunny hours.

"If there is shopping to do or busiwith rubbers, a short dark skirt which mud, a rain coat, a rain hat, and dark gloves should be worn. Long skirts, concentrates they will eat before they es, and white gloves should be worn corporations simply because it makes

PAY FOR POOR ROADS

KANSANS CONFRONTED BY HEAVY TAX FOR INFERIOR HIGHWAYS

Albert T. Reid Says Demand for Thoroughfares Affects Borrowing Power of Farmer-Tells Journalism Students of Farm Papers

The greatest tax which confronts Kansas is the tax for poor roads, believes Albert T. Reid, president of the Kansas Farmer and of the Leavenworth Post, who gave a clever "chalk talk" on "The Kansas Farmer and Good Roads," at student assembly Thursday. Mr. Reid was formerly art editor of the New York Herald.

"The demand for roads materially affects the borrowing power of the farmer, if he tries to get a loan on his property," the speaker declared. "Insurance companies inquire in their applications whether or not the farm is located on well traveled roads.

"The average farmer is not a good roads enthusiast. Politicians have had him going by preaching false economy and telling him that good roads were for city automobiles. The farmers now, however, own far more automobiles than city people and are coming to want good highways for them."

An entire reorganization of the system of roads supervision was advocated by Mr. Reid.

OFFICE IS A JOKE

"The office of road overseer all over this state has for many years been one of the best jokes of which I know," said he. "Many do not want the office and fail to qualify. It should be a good roads business and one which should attract a man to it."

Good roads should save the United States \$250,000,000 a year, the speaker asserted. In England, Belgium, and France the good roads have added as much to national preparedness as any other factor. Those leading to famous battlegrounds have been sources of conflict for many months. A large number of people are constantly looking out for their maintenance and over 2,000 vehicles pass over them every

"Illiteracy always exists where bad roads are found," commented Mr. Reid. "It is a crime against children to allow such conditions to stand. Good roads are a prime factor in the

MAKING UP THE PAGE

Students in journalism also heard Mr. Reid, who spoke to them on topics concerning farm paper work in general, and the make-up of the page in particular.

"Avoid tit-tat-to business," he advised. "Avoid anything that looks too mechanical. Some magazines have a rule that all cuts shall go to the outside of the page-on feature stuff, to the top. Others, where heavy type predominates, shove it to the outside.

"Some people have the 'color eye." Most men don't. The average man has to acquire color-has to acquire that little thing called harmony. When he has it, he has it perhaps a little harder than the girls."

CONSTRUCTIVE FARM PAPERS

The function of the farm paper was declared to be constructive and its main object, to get the news, to get it first, to get it clean, and to be sure of it. The successful farm paper must be readable-the farmer hasn't a great deal of time to spend reading technical discussions. Things might be carried to him in such a way as to tend to rest his mind.

"Construction is not tearing down

'It is not telling the farmer that he is TO BE HERE IN FORCE going to be swindled because of bonds for good roads. There is not much sensation in running a constructive paper."

An explanation of the work of the Kansas Farmer Dairy club, which is one of the ideas originated by Mr. Reid, was of great interest to his audience. Under this plan, 100 banks have offered to loan money to from one to 25 boys, the money to be paid back from the sale of dairy products.

COVERING ALFALFA HAY PAYS KANSAS FARMER

Building Cheap Storage Sheds Is Urged for Protection of Important Crop

Alfalfa hay should not be left unprotected from rains as is now the practice on the average Kansas farm, according to Ralph Kenney, assistant professor of farm crops in the Kansas State Agricultural college.

"Well cured alfalfa hay is well worth the extra expense involved in protection from exposure to rain and unfavorable weather," says Mr. Kenney. "Such hay will command a high price on the market if sold, and will all be in a salable condition. Likewise, if fed on the farm, it will have more nutritive value, than if exposed to all kinds of weather.

"Cheap sheds for storing alfalfa may be constructed from poles 20 feet long set into the ground and supporting a pitched roof of corrugated steel or some prepared roofing. The sides need only be walled for the upper five to seven feet thus preventing dashing rains from beating into the stored hay. For filling the shed a fork running on a track may be used, or if the hay is loaded into a wagon, slings may be utilized to advantage.

"Where insufficient sheds are available, the best quality of alfalfa should be housed. Often the first crop is coarse and woody and not as valuable as a later cutting. Because of its rank growth, the first cutting is difficult to cure. The leaves may be dry enough to shatter, and the thick stems, although dry on the outside, may still contain enough moisture to cause the hay to spoil. Charring often results and spontaneous combustion is not alfalfa hay. infrequent.

"The use of shock covers in curing alfalfa requires extra expense and additional labor. As practically all succeeding crops of alfalfa under Scholarship of \$100 Will Go to Most Effi-Kansas conditions can be cured without them, their use is limited."

MAY FETE PRESENTED ON CAMPUS PROVES SUCCESS

Clever Dancing and Good Band Music Pleasing Features

The May fete held last Monday afternoon on the college campus was adjudged one of the most successful and pretentious events of the kind presented by students of the college. Approximately 300 persons participated, and the attendance was estimated at 2,500.

The months of the year were represented in dances. The costumes were attractive, the dancing graceful, and the whole program carried out in approved style. Miss Mary Polson, as Queen of the May, played her part well. Music by the college band added to the enjoyment of the occasion.

Receipts were more than \$500. It is anticipated that when all expenses are deducted \$400 will be available for equal division between the Y. M. C. A. and the Y. W. C. A.

H. F. Roberts, professor of botany in the Kansas State Agricultural college, has just been notified of his election as fellow of the American Associcirculation," admonished the speaker. ation for the Advancement of Science. postoffice for distribution.

HUNDREDS OF STOCKMEN EXPECTED TO ATTEND MEETING JUNE 9

Dr. Henry J. Waters Will Preside at Morning Session-Dean Charles F. Curtiss of Iowa State College on Program as Speaker

Indications point to a large attendance at the live stock event which will be held at the Kansas State Agricultural college June 9. The program, announced today by W. A. Cochel, professor of animal husbandry, is particularly strong.

Dr. Henry J. Waters, president of the college, will preside at the morning session. W. M. Jardine, dean of agriculture, will read a paper, "Progress with Pastures." "The New Method of Controlling Blackleg" will be discussed by Dr. F. S. Schoenleber, professor of veterinary medicine, and Dr. O. M. Franklin, assistant in veterinary medicine. L. E. Call, professor of agronomy, will tell of "Experimental Work in Crops and Soils." Prior to the lunch hour the experimental farm will be visited. Lunch will be served in the judging pavilion.

STRONG PROGRAM ARRANGED

The first thing on the program for the afternoon will be the inspection of breeding and show cattle. This will be followed by an address, "Relation of Breeding of Purebred Live Stock to the Breeding Industry," by Charles F. Curtiss, director of the Iowa Agricultural Experiment station and dean of agriculture in the Iowa State college. Dean Curtiss has been prominent in live stock and other agricultural work for many years.

The closing, and perhaps most important feature of the meeting, will be the explanation of results of experiments in feeding by Professor Cochel and L. B. Mann. Results will be presented of tests made at Manhattan of feeding 100 calves to make yearling beef. These tests are to show a comparison between shelled corn and ground corn and corn and cob meal, between ground kafir and ground corn, and between kafir heads and ground corn and corn and cob meal. The effect will also be shown of adding silage to a ration of corn, cottonseed meal, and

INTEREST IN DEBATING BY COLLEGE GIRLS IS KEEN

cient Young Woman

For the first time in the history of the college, a debating scholarship for girls is to be offered. Dr. H. J Waters, president of the Kansas State Agricultural college, and members of the board of administration desire to encourage the girls of the college in debating.

A scholarship of \$100 will be given to the girl achieving the greatest proficiency in intercollegiate debating next year.

Interest in debating among the young ladies has been increasing steadily for the last few years. The placing of this scholarship for women debaters puts debating for them on the same basis as that for men. Through the efforts of J. W. Searson, professor of English, a debating scholarship for men of \$100 was offered.

A. B. Smith, college librarian, has received 169 copies of "Defenseless America" from the author, Hudson Maxim, to be distributed among members of the college faculty. Each copy of the book is accompanied by a booklet, "Leading Opinions both for and against National Defense." The books will be placed in the college

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H. J. WATERS, PRESIDENT Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor
ADA RICE, '95, M. S. '12.....Alumni Editor

Except for contributions from officers of the college and members of the faculty, the articles in The Kansas Industrialist are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

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SATURDAY, MAY 27, 1916

The cynic read Mary Pickford's statement, "I cry real tears," and then remarked, "She will make a successful wife."

A school board in California is trying to regulate what the teachers shall wear at social functions. And yet there are people who say public bodies don't take themselves seriously.

The University of Michigan complains that dancing is keeping football men from turning out for spring practice. Perhaps the university will decide to substitute intercollegiate dancing matches for football.

FARM CONVENIENCES

home are among the largest factors in making the country a place of permanent homes. It is lack of comforts, conveniences, and entertainment that have driven the American farmer to seek the town as soon as he has acquired a competency, and his son and daughter to seek it when they are barely ready for active work in the world.

The reason there are no more conveniences in the average rural home is that these conveniences have not been thought of. Farmers have regarded them as exclusively for city people. So, too, have most architects and builders.

Now, however, steps are being taken through W. A. Etherton, professor of rural architecture in the agricultural college. Professor Etherton has addressed himself to the problem of making the farm buildings best adapted to their purpose and most convenient for the farmer and his family. His practical plans will occupy an important place in the development of permanent rural communities.

CONGRESS AND SCIENCE

Many statesmen in all European countries take special interest in scientific matters. In the United States, however, with its new but far reaching economic and social problems, the attention of senators and representatives is naturally turned in the direction of these rather than more academic problems.

With the greater development of the country, however, there must necessarily come a greater interest in scithis direction has been taken by Albert Johnson, a Washington congress-As regards publications intended for of "English composition" is to im- rats and mice.—The County Agent.

the general reader, however, an express mandate is sought from congress.

The centigrade scale having zero as the freezing point and 100 degrees as the boiling point of water is essentially logical, as the Fahrenheit scale with zero 32 degrees below the freezing Addison or Milton or Emerson-so point is essentially illogical. The more convenient than the Fahrenheit as the American decimal coinage syspence, shillings, and pounds. The any basis in logic.

EDUCATION FOR PUBLIC LIFE

Many college graduates declare that training in debate was one of the best and most helpful features of their college work. They find, upon getting out into real life, that ability to think on their feet, to use the right words, and to speak with force and effectiveness serves them in any occupation they may enter.

Men familiar with educational institutions throughout the country generally concede that there is more interest in debate in the Kansas State Agricultural college than in any other institution in the United States. This interest should be increased now that debating is no longer confined to the literary societies but is open to other students as well. For many years the literary societies contained all the students who were interested in forensic work, but with the growth of the college and the multiplication of organizations young men and women interested in debate and oratory are now found in other organizations, though the bulk of them are still in literary societies.

The system of training in debate followed here, while it does not always produce winning teams, produces something better-a good sized group of well taught men and women. By means of tryouts, a debating squad of some 50 members is formed. Modern conveniences in the farm From this squad are selected the members of the various debating teams.

Whereas in most institutions six or seven men and women get all the training for intercollegiate debate, under the plan employed here many times that number obtain the valuable practice. It means a large proportion of the graduates of the institution trained to express themselves in public effectively. It is education for public life.

PROFESSORS AND NEWSPAPERS

Do college professors nowadays believe in newspapers? We believe the best of them do. Some professors even read them, and there are occasional instances of a college professor to show the adaptability of these con- actually being persuaded to write artiveniences to the farm home. In this cles for the Sunday supplement! It Kansas is taking a leading part was very different in 1838. Edward Everett Hale was a Harvard undergraduate then, and was one of those who signed a petition for a college 'reading room." Not only did the faculty say "No," but President Josiah Quincy explained to young Hale "that there had been a reading room some years ago which the college government were obliged to break up; that newspapers were fascinating things 'even to us old men' and that they would take young men away from their studies." A very week argument. It is a far cry from President Quincy's view of 78 years ago to the view of James Melvin Lee, director of the department of journalism of New York university, expressed some weeks since. Professor, Lee suggests that a good daily newspaper be used in the class rooms where instruction in high school grammar and rhetoric is given. It would seem to be Professor Lee's notion that the fact that newspapers make entific affairs. An interesting step in interesting reading is nothing very much against them, and that there is much instruction in studying the hisman, who is pushing a bill to abolish tory of our own times. Newspapers the American people are paying \$120,the Fahrenheit thermometer in favor of are turned out in a hurry, and the 000,000 a year for the privilege of enthe centigrade scale. Mr. Johnson says best of them fall into errors of style tertaining a furtive, dirty, disreputhat the government departments now as of taste, but, if not in schools, at table creature thickly populated with have authority to discontinue the use least in colleges, the use of news- fleas. of the Fahrenheit scale, and many of papers ought to be urged upon such

press upon his so-called students the practical importance of learning how to write good English. Many a practical minded boy regards instruction in this field as wasted time; he is going to be an engineer or an agriculturist or a merchant and not an why bother with Sir Roger de Coverley centigrade thermometer is as much and his friends, or Burke's "Speech on Conciliation with America," or Stevenson's "Lodging for the Night?" tem is superior to the British plan of The newspaper is a part of daily life, even for agriculturists and engineers only thing that holds the Fahrenheit and merchants; and the youth that scale in use is habit—habit without reads newspapers must realize a little more completely than he did before, the advantage it is to command words and sentences as well as flesh-andblood employees. Moreover, a good

A QUARTER CENTURY AGO Items from The Industrialist of May 30, 1891

mencement are ready for mailing to-

Professor Georgeson is announced as one of the lecturers before the Riley County Normal institute.

J. Howard Seely of the United States geological survey called at the college on Thursday and Friday.

Jacob Lund, '83, has, according to But may not climb, for now the hours from Las Vegas, N. M., to Sydney,

Doctor and Mrs. Mayo have had a visit from Miss Carzell and Miss Thomas, relatives of Mrs. Mayo, from Junction City.

The Last Edition

John D. Wells in the Editorial

THEN the last of Life's Copy is finished And edited, baring the sin; When the stress of the toil is diminished, And final forms wait to go in; When the types are locked fast in their places-Our lives written there, and their sum-And we're gathered 'round here in our places All waiting for "30" to come; When the Master Hand touches the lever To run the edition That Day-Then, my brothers of Ever and Ever, Then what will our printed page say?

Will the Chief edit each little error? Each minor mistake will He see? Will He visit the punishing terror On mortals as helpless as we? Will He see the turned rule in the column Each marking a task left undone? Will He note with a mien, grave and solemn, Good works that were never begun? When the Master Hand touches the lever To run the edition That Day, Then, my brother of Ever and Ever, Look well what your pages say!

newspaper serves to bridge the gap between day-by-day practicality and all time literature; often it is a stepping stone from literary blindness to something like appreciation. We are not of those who are gloomily conscious of newspaper superficiality; we are, instead, ever newly amazed by the high standards of style and information which the best of American newspapers reach overnight. Those of our college teachers who croak at occasional split infinitives of the editorial page would do well to ask themselves whether their own best lectures would make endurable newspaper reading. Rene Kelly, in Harper's Weekly.

SOUTH CAROLINA ELOQUENCE

The following, written on the back of an envelope, was picked up on the ground at a gathering of South Carolinians, and is supposed to be the heads of the speech which one of the orators delivered and which he jotted down beforehand:

God knows-The Fair Women-The Great State-The Old Veterans-Breathes There a Man-Familiar Faces-Joke-

Deep Gratitude--Columbia State.

WHAT RATS COST

It is estimated that rats cost the farmers \$60,000,000 a year. If they do as much damage in city and town,

Rats are dangerous as well as filthy

The farm department is constructing a shed in the lane near the hitching yard for protection of the milch cows in pasture there.

Students to the number of eighty odd visited the famed gulches of St. George on Saturday for botanical and entomological specimens.

Class pictures this year will consist of cabinet sized groups of eight or nine each, reproduced from portraits arranged according to chapel divi-

It is said that one or two members of the fourth year class will take the examinations for West Point cadetship, to be held at Junction City on June 16.

The battalion turned out in full force, led by the college cadet band, this morning and carried out their part in the decoration ceremonies to the satisfaction of all parties.

All the way from Springer, N. M. comes the Banner with a reproduction of a chapel address recently delivered by A. D. Rice, third-year, and printed in THE INDUSTRIALIST.

The entrance to the grounds by way of the cinder walk has received the stone posts for which it has long been waiting. Built of range rubble, like the posts at the main entrance, they fit the surroundings neatly.

Superintendent J. M. Greenwood of Kansas City, widely known for his earnest work for true education, will give the annual address on Tuesday evening, June 9. His theme is "Activity of Thinking vs. Acuteness of Thinking."

atory has been shortened to open a their wood have never grown a crop mechanics hall, and to afford room and bear every year but the fruit is the bureaus have done so in publica- youngsters as require the urging. and expensive. Perhaps some time for further hitching racks on com- like the fruit of seedlings. - Albert tions designed for the scientific public. One of the hardest tasks of the teacher we will be civilized enough to abolish mencement day. It seems quite an im- Stayman in the Missouri Valley provement to the grounds.

OH, SNOWS SO PURE

Lewis Morris

Two thousand invitations to com- Oh, snows so pure! oh, peaks so high! I lift to you a hopeless eye.

> I see your icy ramparts drawn Between the sleepers and the dawn.

I see you, when the sun has set, Flush with the dying daylight yet.

I see you, passionless and pure, Above the lightnings stand secure;

the Manhattan Nationalist, moved Are spring's and earth a maze of flowers.

> And now, mid summer's dust and heat, I stay my steps for childish feet.

> And now, when autumn glows, I fear To lose the harvest of the year.

> Now winter frowns, and life runs slow, Even on the plains I tread through

While you are veiled, or dimly seen,

Only reveal what might have been; And where high hope would once aspire

Brooks a vast storm-cloud dealing fire.

Oh, snows so pure! oh, peaks so high! I shall not reach you till I die.

SUNFLOWERS

People who ride in Ford cars should not throw bouquets.

Dame Fashion seems to believe in the survival of the flittest.

A mugwump is a man who votes honestly instead of consistently.

Underwear may not stick in the pictures, but it does in the summer.

Yes, Lucile, abbreviated intelligences will be popular again this summer.

If there were no such things as short skirts the column editors would have to think of something original.

A MORAL POEM Little drops of alcohol, Little grains of dope, Rob us of our common sense

When you have given up all hope of achieving honor, integrity, and the love of your fellow man, one avenue of escape is still left you. You can become efficient.

And steal away our hope.

THE SIX BEST SMELLERS

Onions Garlic Asafetida Boiled Cabbage Limburger Formaldehyde

SPRING AND SUMMER

May moon, Loony tune, Sit and spoon, Coo and croon.

Then-June, Wedding tune, Honeymoon, Trouble soon.

(Business of disillusionment)

July, Pine and sigh, Wonder why, Hope to die.

ORCHARDISTS' MISTAKES

Hundreds of mistakes were made in this part of the west when the first orchards were set out. In fact, we might say that in almost every orchard more than half the varieties set were not suited to the climate. The first settlers planted the varieties which were favorites in the east and not one in ten proved adapted to our soil or climate. The first owner of the farm we now live on set out a number of Russet apple trees, a standard variety in New York but not adapted to our conditions at all. After a lapse of more than 40 years a number of these trees The lane west of the chemical labor- are still alive, and while thrifty in way to the hitching yard in rear of of apples fit to eat. They blossom Farmer.

William Haggard, '15, visited friends in Manhattan Sunday.

Miss Blanche Gorrell, '15, will teach another year in Parkerville.

Miss May Cowles, '12, is doing graduate work in the University of Wisconsin.

Miss Reva Lint, '13, has been reelected to teach in the high school at Dodge City.

Miss Clara L. Blair, '15, has been reëlected to teach home economics in the Mulvane high school.

A. J. Montford, '12, has been reelected so teach agriculture and science in the Paola high school.

Miss Pauline Clark, '15, has been reëlected to teach home economics in the high school at Paola.

L. C. Christie, '13, has been reëlected to teach agriculture in the Reno county high school at Nickerson.

in the high school at Axtell.

Park Lillard, '14, attended the May fete given by the students of the Kansas State Agricultural college.

Miss Clara Willis, '15, has accepted a position in a cafeteria in Long Beach, Cal., for the coming year.

F. A. Smutz, '14, has been reëlected to teach manual training in the Granite Falls, Minn., schools for another year.

Miss Eva Pease, '15, who finished a successful term of school at Attica, returned to her home in Manhattan last week.

Gerald Fitzgerald, '15, of Colby was a recent visitor at college. He was a guest at the Sigma Phi Delta

Miss Margaret Jones, '14, of Barrett visited in Manhattan over Sunday and attended the May day exercises at the college.

Miss Ethel Goheen, '13, has just returned from Holtonville, Okla., where ceeds of the copyright over to the assoschool year.

Miss Vesta Smith, '13, who has been go to Parsons to teach home economics next year.

L. A. Richards, '15, sails from Vancouver on July 13 for the Philippine islands where he is assigned to duty in the constabulary.

Miss Hattie Burnham, '13, has been re-elected to her position for another year as teacher of domestic science in the Mankato high school.

F. C. Webb, '04, has moved from Clearwater, Kan. His brother, William A. Webb, '04, is there also.

Miss Etta V. Sherwood, '12, has returned to her home in Manhattan to spend the summer. She has been teaching in the high school at Cawker

Miss Emma Kammeyer, '12, who has been teaching in the Anthony schools, is home to spend the summer with her Tuesday afternoon, May 30, beginning parents, Dr. and Mrs. J. E. Kam-

Miss Mable Broberg, '12, returned from Lyons Tuesday, where she has been teaching. She expects to teach in the McPherson county institute during August.

Miss Katherine Adams, '14, who has been teaching domestic science in the Ellsworth high school, has been appointed to the same position for the coming year.

Miss Margaret Schultz, '13, has returned from Cherokee, Okla., where she has been teaching. Miss Schultz will teach in the Manhattan city schools next year.

W. E. Stanley, '12, was recently elected to membership in the Purdue branch of Sigma Xi. Mr. Stanley completed the course in civil engineering at the agricultural college.

A donation of valuable books has been received at the college from C. J. Willard, '13, of Chicago, son of Dr. Alice Melton, treasurer.

J. T. Willard. The books include a 10-volume set of "The Messages and Papers of the Presidents" and a complete set of gardening magazines.

Miss Rembert Harshbarger, '15, has just finished a very successful year at Fowler. She has been engaged at an increased salary to teach domestic science there next year. Miss Harshbarger is now taking a camping trip in southern Colorado, and expects to be at home in Manhattan, June 1.

BIRTHS

Born, to Mr. Dudley Atkins, jr., '13. and Mrs. Edythe (Skinner) Atkins, '13, a son. They are living in Manhattan.

Born, to Mr. R. H. Musser, '14, and Mrs. Ruby (Howard) Musser, Twin Falls, Ida., on May 16, a daughter, Mary Virginia.

MARRIAGES

WREATH-RAWSON

Miss Nellie Wreath, '12, and Mr. Leonard James Rawson were married at 10:30 o'clock the morning of May Miss Edna Danner, '14, will teach 20, at Manhattan. The ceremony was home economics for her second year performed by the Rev. Wallace Woodburn of Lincoln, Nebr., a cousin of the bride.

> The bride has just completed a successful year's teaching at Stockdale. Mr. and Mrs. Rawson will be at home after June 1 on Mr. Rawson's farm near Wamego.

FAVORS PROPOSED CHANGES

My dear Miss Rice:

This will acknowledge the circular letters of yourself and Brother Rush more, recently received.

I haven't time to write much of a letter this morning, but you can register me as being heartily in favor of the proposed changes in the alumni constitution, recently printed in THE INDUSTRIALIST, and also the life membership at \$20, to be used for the creation of a student loan fund. You can have my check whenever you are ready for it.

President Waters has certainly done a splendid thing in turning the proshe has been teaching for the past ciation. For 20 years I have felt very strongly that the alumni of the college were not the force they should be either in the Norton county high school, will in building up the college, or in spreading its doctrines among the outside world. I hope that at last it is going to get off on the right foot, and occupy the position it properly should.

Inclosed you will find the best list we have been able to compile to date of the K. S. A. C. crowd in and near Chicago.

We folks around here are particularly glad to know that you are now the alumni editor of THE INDUSTRIAL-IST, and hope that you can do a good Tiffany, Col., and is now located near deal to bring those of us who are so widely scattered over the country into closer touch with one another.

Sincerely yours,

R. S. KELLOGG, '96. Wilmette, Ill.

RESIDENT ALUMNI PICNIC

The annual resident alumni picnic will be held on the college campus at four o'clock.

Each year the resident members of the college alumni association have a picnic on Decoration day. This particular day is selected because it is a holiday and everybody can attend. The object of the picnic is not only to have a general good time, but also to make arrangements and talk over plans for the annual alumni reception which is held each year on the night of commencement day. This year the husbandry in the Kansas State Agrimeeting place will be just east of Fairchild hall.

Every alumnus in Manhattan or territory tributary to Manhattan is expected to attend. If only one member of the family is an alumnus of the college this one may invite all other members.

The members of the committee in charge of the arrangements for the afternoon are Edward Shellenbaum. president; L. A. Fitz, vice president; Edward M. Amos, secretary; Miss large areas they will graze the grasses

HOW TO HANDLE MILK

SOME WAYS IN WHICH CONTAMINA TION MAY BE AVOIDED

Cleanliness Is of Utmost Importance i Safeguarding Against Impurities -Be Particular, Is Advice of W. E. Tomson

Milk comes from the cow in a pure and clean state. Impurities that get into it are due largely to the thoughtless acts of the people who care for and handle the milk, according to W. E. Tomson, instructor in dairy husbandry, Kansas State Agricultural

"Before beginning to milk brush the cow's sides, wash her udder and teats carefully and milk with dry hands," advises Mr. Tomson.

should wear clean clothes. Dirt laden wearing apparel is sure to afford ample chance for contamination of milk.

THOROUGHLY CLEANSE UTENSILS

"Milk pails and milking utensils should be cleaned in lukewarm water. A washing powder should be usedthere are many good kinds. If it is impossible to steam the utensils, they should be scalded in hot water. Do not rinse milk cans in the water trough or any other water likely to be contaminated.

"Caring for whole milk is the problem that confronts many persons who would keep it for market purposes. A tank through which the water for the live stock runs will prove a good cooling place, but do not set the cans in a horse trough for the horses may nose around the lids and thus make possible bacterial infection of the milk after the cans are opened. A small tank near the windmill and away from the stock affords a desirable place for cooling. There should be a lid on the tank to keep the sun from heating the tops of the cans.

"Where a tank cannot be had a barrel cut in two will answer the same purpose. Stirring is an important process that gives an opportunity for all the milk to have a uniform temperature. If it is not stirred, it will cool on the outside and not above the water line. The milk will spoil unless uniformly cooled.

DO NOT MIX MILK

"Do not mix morning and evening milk, unless they are both of the same temperature and then it is not advisable because there is a chance of fermentation having started in the older milk. Sour cream can be mixed if it is cooled.

"In transportation the cans should be protected from the sun. Throw a wet blanket over them. This will keep them cool and thus retard the growth of bacteria which are always present in milk.

"Family use of milk often brings the butter fat test below standard because milk is taken out of a large container after the cream has been allowed to rise. A receptacle in which milk is kept for family use will solve this problem. This receptacle, as all others, should be closed in such a way as to prohibit the entrance of odors. Milk readily absorbs odors, and should be kept away from them at all

SMALL FLOCK OF SHEEP IS PROFITABLE ON FARM

With a Little Care Good Returns Will Be Realized, Says A. M. Paterson

Every Kansas farm should have a small flock of sheep, in the opinion of A. M. Paterson, instructor in animal cultural college.

"After shearing, the sheep are generally turned out to shift for themselves," says Mr. Paterson. "They will take care of their own wants where feed and water are plentiful, but a little care and attention is desirable. This will increase the comfort of the sheep and the profit.

"When the pasture is large it should be divided so that the sheep will get the maximum amount of feed. On the they like best.

"The ewes that are in poor condition should be separated from the rest of the flock and be given more feed and care. This will increase their vitality and they will raise better

"Rape may be sown in feed lots as it is an excellent pasture crop for sheep. These lots are convenient places for the thin ewes and are the means of utilizing land that would otherwise be idle. Care should be taken when changing from one pasture to another. Before making the change the sheep should be given some dry feed, for this will do much to prevent bloat.

"The health of the sheep must be guarded in summer as well as in other seasons. Fresh water and shade are essential. Where natural shade is not available, a few old poles and "The person who does the milking boards put together answer the purpose. Sheep should not be exposed to cold, driving rains just after shearing as pneumonia is likely to result. They should be dipped after the weather has become warm or just after shearing. Dipping kills the external parasites, puts the skin in a healthy condition and aids in producing a luxuriant growth of wool.

"The stomach worm probably causes more losses than any of the other internal parasites. The best remedy is prevention. Avoid purchasing sheep from an infected flock, change the pasture often, and graze the lambs on a new pasture every year.

"The stomach worm is found in the fourth stomach and is visible to the naked eye. It affects all of the flock but the weaker animals show it first. The animals lack appetite, have diarrhea, and the skin is hard and dry, After the worm is discovered put the sheep on a good, rich ration. Never put them in a worm free pasture. The proprietary medicines are better as a preventive than as a cure. A teaspoonful of gasoline given in milk has proved a good remedy."

At weaning time the ewes should be given some dry feed that will decrease the flow of milk, points out Mr. Paterson. The udders should be watched closely and milled out if nec-

The weaned lambs should be put on fresh nutritious pasture with some grain. Separate the ewes and lambs so they will not be disturbed by the bleating. The lambs should not be allowed to lose weight but be handled so they will keep on growing.

"Success in sheep husbandry depends on the man," says Mr. Paterson. "Every farm should have a small flock of sheep, the size depending on the conditions. If the sheep receive proper care they will prove a valuable source of income."

FROZEN DESSERTS ARE BEST FOR HOT SUMMER WEATHER

These Dainties Are Appetizing, Tempt ing, and Cooling on Warm Day

Frozen desserts are much more appetizing, tempting, and cooling in the summer months than a pie or pudding, points out Miss Alice Skinner, instructor in domestic science in the Kansas State Agricultural college.

"Rich and nutritious desserts may be served cold, but they heat the body afterwards, and hence simple desserts are generally more acceptable," says Miss Skinner.

"The housewife is spared the discomfort of bending over the hot stove while preparing frozen desserts. They may be mixed and frozen in practically the same time that it takes to prepare and bake a pie. These dishes may be prepared at least six hours before serving and if well packed will not deteriorate.

"The simple ices offer a vast variety because of the various fruits one may use. Canned fruits as well as the fresh varieties in season, may be used."

It has been found that the ice and salt used in freezing the mixture evenly balance the cost of fuel used in baking a pie or pudding, says Miss Skinner. Unless eaten in large quantities frozen desserts are not harmful. A small will not do.

TELLS OF DRUG FRAUD3

R. H. NEEDHAM SPEAKS OF QUACK-ERY BEFORE VISITING CHEMISTS

Many Patent Medicines Do Nothing for Users Except Lighten Pocketbooks -Others Do More Harm Than Good

That the use of many patent medicines does nothing for the user except lighten his pocketbook was the statement of R. H. Needham, associate in stock remedy analysis, Kansas State Agricultural college, in an address before the members of the Kansas City section of the American Chemical society at the college Saturday night.

"There are more than 10 patent and proprietary preparations on the market for every approved or nonsecret drug used in medicine," said Mr. Needham. "Nonsecret preparations number 4,500, while there are 47,520 patent and proprietary preparations.

"The contents of many of the medicines of quackery have been changed in the last few years due to the stringent laws passed and their rigid enforcement.

SOOTHING SYRUPS HARMFUL

"Soothing syrups have been known to create an appetite in children and cause them to cry for them. They contain something harmful to the user or they would not have this effect.

"Many advertisers claim for their medicines that they do not have the harmful effects of a narcotic yet have all the curing qualities. They claim to have removed all the poisons common to morphine or its derivatives and label it under a new name, thus concealing the content of the ingredientseven from many skilled physicians. It has been proved that it is impossible to remove the injurious qualities of morphine."

Old remedies that have been known to physicians for years, pointed out Mr. Needham, are given a new name, patented, and the people charged four and five times the actual cost of manufacture. For example, a medicine containing epsom salts that have had a trace of perfume and color was sold as a complexion beautifier at a price about 10 times the actual cost.

SOME CASES OF FRAUD

A flesh builder was put on the market some time ago that had no fat producers in it at all. The contents of a \$1 package actually cost 5 cents. A large number of sales build up a fat bank account for the company.

What were claimed to be positive cures for tuberculosis have been sold to the unsuspecting people, Mr. Needham told his hearers. In one case a man was advertised as having used the medicine which restored him to health. The fact was that he had never had the disease as proved by physicians who examined him.

Cures for cancer flood the market and the people buy them as readily as they snatch up cough remedies, remedies for falling hair, and sure cure for eye trouble.

FARMER AS BUSINESS MAN SHOULD HAVE TYPEWRITER

Neat Letter on Appropriate Stationery Makes Good Impression

A neatly typewritten letter on appropriate farm stationery will give the average person a better impression of the farmer as a business man, according to H. W. Davis, associate professor of the English language in the Kansas State Agricultural college.

"In any advertising the farmer is doing for the farm sale where he may have occasion to write 25 or 50 letters at once, or where he is working up his trade in any way, the typewriter is undoubtedly of great benefit," says Professor Davis.

"A typewriter is a particularly good thing to have in the Kansas farm home because it serves as a help in educating the children. By conscientious practice, the boy and girl on the farm may become experienced typists and at the same time handle the business for their father.

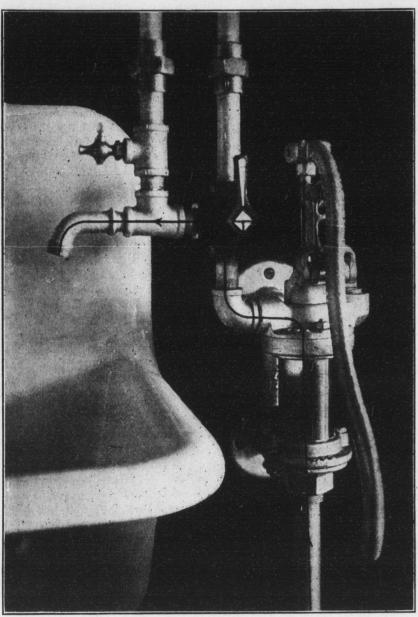
"Every farmer should keep duplicate copies of all business letters, amount of cold food serves to cool and leases, and particular terms of conrefresh one in a way that heavy food tracts where he has made important sales."

HOT AND COLD WATER NOW WITHIN REACH OF FARMER

PRACTICAL, SIMPLE, AND INEXPENSIVE WATER SUPPLY APPA RATUS IS INVENTION OF PROFESSOR W. A. ETHERTON OF COLLEGE

now within the reach of all persons storage tank required. The system engaged in agriculture. This is made can be drained easily and completely out an equal amount of hot water. possible by a simple invention by W. to prevent freezing without wasting the This is exactly what occurs in the or-A. Etherton, professor of rural archi- water in the range boiler. Hot, cold, tecture in the Kansas State Agricul- or warm water as the kitchen worker tural college.

Hot and cold water on the farm is respects. The range boiler is the only may need it can be had through the



APPARATUS ADJUSTED FOR COLD WATER

With this new device the housewife pump spout. The pump can be primed may draw hot, warm, or cold water from the spout of a little house pump. This practical, simple, and inexpensive water supply apparatus can be had for double the cost of a cistern bucket pump, which it may displace. It may be used in the kitchen safely where water freezes at night.

pump, a 30-gallon range boiler, lead house. pipe, a 18 by 30 inch flat rim sink, and Excepting makeshifts, it is the cheapa lead trap-is offered for sale by one est scheme yet devised for piping hot firm for \$25. Additional pipe required, and cold water to the kitchen sink. the water front in the range, and the All of the materials required for it can sewer for the sink will increase the be bought for about double the cost of cost in amount varying with the con- a cistern bucket pump which it may ditions of installation. If the pump displace. displaces another one over the cistern, the extra cost for running water in the kitchen may be estimated, roughly, at \$15.

The device in its simplest form is a step between the pitcher pump at the may be made up at the plumbing shop kitchen sink and the attic tank system or supply house and then disconnected of plumbing as commonly installed. at the union couplings as may be Like the pitcher pump, it is intended necessary for transportation. for use only in connection with cisterns or shallow wells near the house. It can, however, be used over a well too used advantageously with this plumbdeep for a house pump if the well is ing device seem at first to be more placed directly under the pump so that complicated than the device itself, but the cylinder can be lowered within 25 feet of the surface of the water.

USES OF APPARATUS ARE MANY

It can be used to some advantage in connection with a gravity or pressure system of water supply. It can be used force pump and its suction pipe to the also, and with but slight changes, to supply hot and cold water to additional fixtures in the kitchen or adjoining rooms.

All that is unusual in its make-up a drain cock under the boiler. is the combination of ordinary pipe fittings and cocks, which, when put there is nothing unusual in the pump. together, make a new kind of pump Any house pump that is suitable for spout. However, it is unique in many forcing water into an attic storage

by a very simple operation.

Little of the plumbing is concealed and, for the simplest installation, but one hole needs to be cut for it. In fact, the apparatus is portable, and the tenant who will provide his own plumbing rather than do without it, can easily move this device with his The apparatus-an ordinary hand furniture and set it up in another

The apparatus is simple. The several parts can be purchased from the local plumbers or from plumbing supply houses and put together by the farmer on the job, or the apparatus

DESCRIPTION OF PLUMBING

The several operations that may be when understood, they appear simple enough and can easily be performed.

A general description of the plumbing device is first necessary to explain its several operations. The apparatus, in its simplest form, consists of a cistern or well, a range boiler, a water front in the kitchen range, or a separate water heater, the pipe and fittings connecting these three elements, a three-way cock, an air cock, and

With the exception of the spout,

device by which water is forced diboiler need differ from that in common | State Agricultural college. use only in the omission of the small siphon hole in the boiler tube.

In the adjustment of the stopcock, water from the pump is forced upward through the boiler feed pipe and down of the range boiler. When the boiler is full, the inflow of cold water forces dinary pressure and tank systems of plumbing.

Unlike the pressure system, however, the outlet of the hot water pipe is always open. No means is provided for closing it and none should be unless some other outlet than the pump spout is provided for the escape of steam and for the overflow from the boiler caused by the expansion of the water when it is being heated. With this pipe open, steam cannot be confined and there can be no more pressure in the boiler than in an open tank.

BOILER IS OPEN TANK

The boiler is practically an open tank and the operation of siphoning from it may more easily be understood if one thinks of it as being open at the top and of the air cock and hot water pipe as being omitted.

The outside leg of the siphon-that is the boiler feed pipe-remains full of water after pumping into the boiler, so the siphon will start as soon as the stopcock is turned to open it and the air is admitted.

The siphoned water is taken from the bottom of the boiler and, as the hottest water is at the top of the boiler, it can be obtained only by pumping when the boiler is full. Three temperatures of water are thus to be had-cold water from the cistern, hot water from the top of the boiler by pumping, and warm water from the bottom of the boiler by siphoning.

A bulletin giving further details of Professor Etherton's invention will shortly be published by the engineering experiment station.

SEX OF DAY-OLD CHICKS SHOULD BE DETERMINED

Ability to Do this Would Prove an Asset to Many Kansas Poultry Raisers

sometimes desirable to determine the

tank is suitable also for this plumbing sex of day-old chicks, is the opinion CHEMISTS AT COLLEGE of W. A. Lippincott, professor of rectly through a range boiler. The poultry husbandry in the Kansas

"Ability to determine sex is particularly valuable to persons who make a business of selling day-old chicks and to those who desire to raise the pullets only," says Professor Lippinthrough the boiler tube to the bottom cott. "It is impossible for Kansas poultry raisers to do this, however, except in the case of a few of the varieties in which there is a difference of color marking between the sexes as in the barred Plymouth rocks and silver Wyandottes.

> "In China where one family follows the same occupation generation after generation, the poultry raisers have developed their sense of touch so highly that they can determine the sex of chicks quite accurately. Even with a Chinese to tutor him, it is not probable that any American, with the possible exception of some of the students of the blind institutions, could become proficient in this art, and consequently the American must depend on sex characteristics and color markings."

> In all varieties of poultry, points out Professor Lippincott, the male chicks have a sturdier appearance, a wider comb space, and heavier legs and beak. These characters alone are often misleading but coupled with color markings, they furnish a good working basis.

> In the barred Plymouth rocks, the male chicks are characterized by their lighter color, their clear yellow legs and beak, and by the size of the white spot on the head, which is almost invariably larger. The females have a more refined appearance, dark shanks and beak, and a darker color in general. Each strain of the breed varies decidedly, and consequently a person must become familiar with his strain.

> In the silver Wyandottes, the males have a decidedly lighter color and usually have a narrow distinct stripe down the back. The females do not have this stripe.

"In order to become proficient in the art of determining sex in day-old chicks, it is necessary to practice several seasons on a single strain," says Professor Lippincott. "Mark the chicks believed to be males and those believed to be females and watch them to see which they prove to be. By profiting by mistakes, it is pos-That it is not only possible but sible in time to be accurate in a large per cent of the cases."

KANSAS CITY BRANCH OF AMERICAN SOCIETY MEETS HERE

Visitors Are Pleased with Institution-Listen to Papers by Local Men at **Evening Session—Next National** Meeting at Kansas City

The Kansas City section of the American Chemical society held its 118th meeting at the Kansas State Agricultural college Saturday. This is the first time it has met here. Meetings were previously held at Kansas City and Lawrence alternately.

Announcement was made that the next national meeting will be held in Kansas City in April, 1917. Membership in this organization, which is the largest chemical society in America, is 7,000.

Those who attended the local meeting were shown over the campus in the afternoon and in the evening papers were read. "The Chemical Conditions Essential for Making Alfalfa Silage" was the subject of a paper by C. O. Swanson, associate professor of agricultural chemistry in the Kansas State Agricultural college. Alfalfa tests were explained in detail and the reasons given for their success or failure.

EXPERIMENT BY DOCTOR WATERS

"New and Nonofficial Remedies and the Propaganda of Reform," was discussed by R. H. Needham, associate in stock remedy analysis. He explained in detail the unworthiness of some well known advertised medicines.

A summary of the five years' experiment work carried on by Dr. H. J. Waters, president of the agricultural college, and the departments of animal husbandry and chemistry in investigating the nutritive deficiencies of corn, was given by Dr. J. T. Willard, dean of the division of general science.

"It has long been believed," said Dean Willard, "that this cereal has some definite lack in its chemical composition. These investigations are believed to have proved that the mineral constituents of corn are inadequate, and that characteristics of its proteins are responsible to a large extent for the fact that young swine on corn alone make very slow growth, or none at all. and in some instances actually die from starvation."

WAR HAS CREATED INTEREST IN AMERICAN PERCHERONS

Dealers Find that Imported Sires Are No Longer Needed

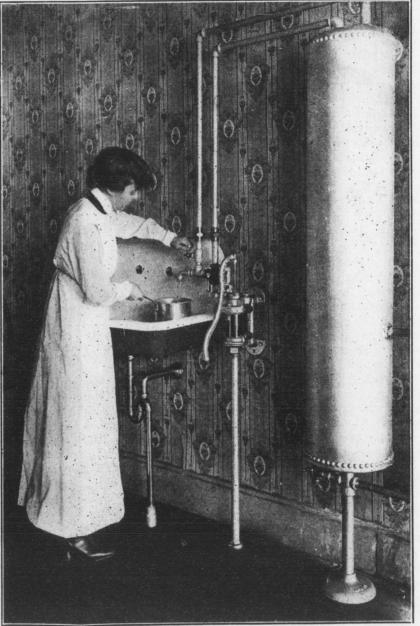
The European war has indirectly stimulated interest in Percheron breeding stock in this country, according to Dr. C. W. McCampbell, assistant professor of animal husbandry in the Kansas State Agricultural college.

"Dealers who formerly depended entirely upon imported stock have been buying and developing American bred Percherons since the war began, and find that the European sires are really no longer needed," says Doctor McCampbell.

"In past years many worthy and famous Percheron sires have been imported to America but far too many inferior animals have accompanied the good ones.

"Far too many prospective purchasers have persisted in placing a halo over a sire simply because he happened to be imported. This hallucination has enabled dealers to sell large numbers of very inferior imported stallions at many times their real value. Prospective stallion purchasers should remember that breeding and individuality make a worthy sire rather than the place where he was bred."

The local sorority, Lambda Lambda Theta, has been granted a charter as a chapter of the national sorority, Kappa Kappa Gamma. The installation ceremony will be held some time in June. Lambda Lambda Theta was organized in 1906, and is one of the oldest sororities in the Kansas State Agricultural college. There are 21 active members and two pledges.



SIPHONING WATER FROM BOILER TO TANK

KEEP ABLEST ON FARM

DEAN JARDINE IS FOR STAY-ON-LAND MOVEMENT

Head of Agricultural Division Receive Honorary Degree from Campbell College, Where He Tells Graduating Class of Need for Rural Leadership

Urging agricultural efficiency as a national necessity, W. M. Jardine, dean of agriculture in the Kansas State Agricultural college, told the graduating class of Campbell college at Holton Wednesday that a stay-onmovement was the most pressing problem of rural life.

At the commencement exercises Dean



DR. WILLIAM M. JARDINE

Jardine was honored with the degree of doctor of laws, which had been voted to him by the board of trustees and was formally conferred on this

Dean Jardine's address was a plea for rural leadership. He presented in a clear cut way the social and economic conditions surrounding country life. He urged that farming be made as profitable and as attractive as urban occupations. He strongly emphasized the place of church and school in rural readjustment.

COUNTRY AND CITY INTERDEPENDENT

"Many people," said the dean, "consider the country life movement to be the real problem since statistics indicate that the farming population is steadily decreasing while the urban population even more rapidly increases. The ratio between producer and consumer is significantly widening, and the cost of living continues to mount because of the improper balance in food products, between supply and demand. The urban philosopher believes the solution of his problem lies in persuading more people to live upon the farms, with resultant increase in the number of producers. However, the populations of the city and decades ago. of the country are so interdependent that no entirely separate country and the cities are the very ones that should city problems exist.

"While the relationship of supply and demand, more than any other factor, controls the cost of living, and while the solution may be obtained in part by increasing the farming population, the complete solution will arise only through bringing about a country life condition that will satisfy the social and economic ambitions of those already living upon the farms. To retain as future farmers, farm born and reared young men and women, is better than to induce a flow of population from city to country. The national need can be more appropriately termed a stay-on-the-land issue than a backto-the-land problem.

"The country life movement as it is conceived by those who have studied

it most closely requires that rural civilization be as effective and as satisfying as other civilizations. It is a world movement to provide opportunities for growth in the country equivalent to those in the city. Country life has not reached so high a development within its plane as has city life within its plane. The business of farming today as carried on by the majority of those engaged in it, is neither as profitable nor as attractive as it should be in proportion to the energy expended and risks assumed. This condition would only be intensified by increasing the farming populathe-land rather than a back-to-the-land tion. The remedy must come through developing a more efficient farming class by means of education. By making every farmer a more efficient producer more food products will be supplied with the same expenditure of time and physical energy, lowering their cost and increasing the farm income or amount of time available for recreation and social enjoyment.

"The rural community has suffered in nearly every conceivable way as a result of the rapid development of in dustrial civilization. These large industries (and industrial centers have afforded unprecedented opportunities for the accumulation of wealth. If the business of farming can be made as remunerative and as attractive as other industries, red blooded young men and women will then be ready and willing to live in the country and engage in the business of farming. Not until then will the balance between country and city population take care of itself or will the problem of cost of living be less pertinent.

ENTER ABSENTEE LANDLORD

"Land values in America have risen 100 per cent or more in the past two decades, due to the fact that the land most suitable for farming has been taken up, while the government no longer possesses really valuable farming lands open to settlement. Farming during this same period has been profitable to those who have operated according to approved methods and nearly all these have been able to retire from active work after 10 to 20 years of farm practice. Land exploitation and rising land values have developed fortunes for others without occasioning the actual tillage of the soil by the owners.

"These forces have produced the absentee landlord. The most capable synonymous with the back-to-the-land farmers in the last 20 years have re- Oregon, and Montana, and Leland movement. To city folks the latter is tired to the city, there to enjoy the Stanford university. superior educational and social advantages for themselves and their families, and have turned their farms over to the management of tenants.

DECLINE OF COMMUNITY LIFE

"With the advent of the absentee landlord and the tenant farmer has come a disintegration of the hearty and cheerful community life of the early days. The social and community activities of the country people compare even less favorably with those of city dwellers than they did a few

"The people who have moved to be induced to stay in the country, because usually they are the ones that have succeeded. When they leave the country they have just reached the stage of development where they can be of greatest service to country people. Their prosperity has given them cent investigations show that cultivaleisure to devote to community problems. They could be the real leaders and could do a tremendous amount of good in building up rural institutions such as the country church, the country school, and good roads, in creating an interest in beautifying landscapes, in organizing cooperative associations for selling and buying, and in getting country people to work together through their leadership. Instead, persons of such potentialities make much growth."

(Concluded on Page Four)

NATIONAL JOURNALISM SORORITY TO INSTAL CHAPTER AT COLLEGE

Charter Is Granted to Women's Press Club -Kansas City Newspaper Woman in Charge of Initiatory Ceremonies-Society in Strong Institutions

Theta Sigma Phi, national journalism sorority, will soon instal a chapter in the Kansas State Agricultural college. A charter has just been granted to a telegram received by Miss Edith Updegraff, secretary of the local organization.

It is expected that the chapter will be installed before the close of the college year. Miss Vina Lindsay, a member of the editorial staff of the Kansas City Post, will be the installing officer.

The Women's Press club was organized early in the present college year, it being evident that with the large enrolment of young women in professional journalism courses an organization of this sort could be readily maintained.

ALUMNI AND ACTIVE MEMBERS

Alumni members of the club are Miss Mary Catherine Williams and Miss Lulu Case of Topeka, Miss Izil Polson of Fredonia, Mrs. Harry Mills Ziegler of Springfield, Ohio, and Mrs. Max Wolf of Manhattan.

The active membership comprises Mrs. Ethel Strother of Manhattan, president; Miss Edith Updegraff of Topeka, secretary; Miss Erba Kaull of Glen Elder, Miss Nelle Flinn of Admire, Miss Dora Otto of Riley, Miss Hazel Beck, Miss Eva Hostetler, and Miss Annette Perry, all of Manhattan.

REQUIRES HIGH QUALIFICATIONS

Theta Sigma Phi was founded a number of years ago in the University of Washington, one of the first institutions in America to offer instruction in journalism. It has grown slowly, installing chapters only where standard professional courses in journalism are offered and where there are a number of women with a definite intention of making journalism their vocation. The chapter here will be, when installed, the only one not located in a university. The present chapter roll comprises the state universities of Washington, Wisconsin, Missouri, Indiana, Kansas, Ohio, Oklahoma,

The sorority publishes a monthly magazine, the Matrix, named for the official pin, which is in the form of a miniature linotype matrix. The publication ranks among the four or five most attractive fraternity magazines of the United States.

JUDGMENT SHOULD BE USED IN CULTIVATION OF CORN

Crop Is Sometimes Injured Through Excess Working of Soil

Excessive cultivation of corn sometimes injures rather than benefits the crop, in the opinion of S. C. Salmon, assistant professor of farm crops in the agricultural college.

"Many farmers think that the main purpose of cultivation is to prevent evaporation from the soil and consequently the drier it is the more they cultivate," says Mr. Salmon. "Retion to conserve moisture is much less important than previously had been supposed.

"The essential thing in cultivation is to kill the weeds, as they utilize moisture and plant food that ought to be available for the growing crop. Weeds use from 250 to 350 pounds of water for every pound of dry matter produced and consequently it is important to get rid of them before they

The best time to control weeds, year.

ENTER THETA SIGMA PHI points out Mr. Salmon, is before the corn is planted and the ground can be so handled previous to planting as to reduce weed growth to a minimum. Proper rotation of crops, fall plowing, and timely cultivation in the spring may materially reduce the number of

Cultivation is the principal item of expense in the production of a corn crop and an accurate knowledge of the corn needs is of fundamental importance. The number of times corn should be cultivated will depend upon to the Women's Press club, according the growth of weeds and the proper number is that which adequately controls weed growth.

THRONG OF ALUMNI WILL RETURN TO OLD COLLEGE

Program for Commencement Week Is An nounced-Bitting and Claxton Will Be Principal Speakers

Hundreds of alumni, relatives of members of the 1916 class, and friends of the institution will be in Manhattan for the commencement week of the Kansas State Agricultural college June 11 to 15. Indications are that a larger number of graduates will be back than at any previous commence-

The program of the week follows: Sunday, June 11-Baccalaureate sermon by the Rev. William Coleman

Bitting, D. D., pastor of the Second Baptist church, St. Louis, Mo., auditorium, 4 o'clock p. m.

Monday, June 12-Annual address to the Phi Kappa Phi, auditorium, 8 o'clock p. m.

Tuesday, June 13-Student assembly in charge of class of 1916, auditorium, 9 o'clock a. m.; dedication of class memorial, 11 o'clock a. m.; senfor class play, "The Professor's Love ni to the institution from which they Story," by J. M. Barrie, auditorium, 8:15 o'clock p. m.

Wednesday, June 14-Phi Kappa Phi initiation, Alpha Beta Hall, 11 o'clock a. m.; Phi Kappa Phi luncheon, 12 o'clock m.; alumni business meeting, chemistry lecture room, 2 o'clock p. m.; Jayhawker fair, Saddle and Sirloin club, north campus, 3 o'clock p. m.; recital by music faculty, auditorium, 8:15 o'clock p. m.

Thursday, June 15-Commencement exercises with address, "The Value of Land," by Philander Priestly Claxton, LL. D., United States commissioner of education, Washington, D. C., auditorium, 10 o'clock a. m.; alumclock p.m.; cadet band concert, auditorium, 2 o'clock p.m.; dress parade, college cadets, campus, 3 o'clock p. m.; Alumni-K. S. A. C. baseball game, athletic field, 4:30 o'clock p.m.; reception to visiting alumni, the faculty, and friends of the college, by the Manhattan Alumni association, Nichols gymnasium, 8 o'clock p. m.

SEVERAL INSTRUCTORS RESIGN TO TAKE UP GRADUATE STUDY

Charles Dunn Will Be New Member of De partment of Education

The resignation of Ray V. Murphy, assistant in chemistry, has been accepted. He will study in the University of Wisconsin next year. Frank E. Mussehl has resigned as assistant in poultry husbandry. Miss Clare L. Biddison, assistant in vocal music, has been granted a year's leave of absence. She will study music. J. P. Poole, assistant in botany, has been granted a year's leave of absence to study at Harvard university. The resignation of Miss Grace Gilkison, secretary to Dean Mary P. VanZile, has been accepted.

Charles Dunn, a graduate of the Kentucky State university and of the University of Chicago, has been appointed to fill a position in the department of education created by the absence of Prof. E. L. Holton next

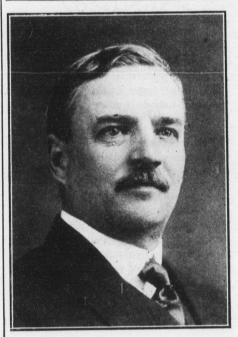
NEW DEGREE TO WATERS

PRESIDENT OF COLLEGE IS HONORED BY HIS ALMA MATER

University of Missouri Confers Doctorate of Laws on Prominent Alumnus on Thirtieth Anniversary of His Graduation in Agriculture

Dr. Henry Jackson Waters, president of the Kansas State Agricultural college, was honored with another degree Thursday morning. It is the degree of doctor of laws and came from his own alma mater, the University of

After the conferring of the degree, Doctor Waters made a brief talk in which he emphasized the duty of alum-



DR. HENRY JACKSON WATERS

had been graduated. The program at Columbia included the commencement exercises with the conferring of degrees and the address to the graduating class by Dr. A. Ross Hill, president of the university, and the class day exercises of the Class of 1916.

PROMINENT IN AGRICULTURAL WORK

Doctor Waters received his first degree, that of bachelor of science in agriculture, from the University of Missouri just 30 years ago. He later studied in the universities of Leipzig and Zurich. He taught agriculture in several leading institutions and held a number of important positions in ni dinner to class of 1916 and invited Missouri, being successively assistant guests, Nichols gymnasium, 12:10 o'- secretary of the state board of agriculture, assistant in the experiment station, dean of the college of agriculture, and director of the experiment station. He has been president of prominent organizations including the Missouri State Board of Agriculture, the International Dry Farming congress, the Kansas State Teachers' association, and the American Society for the Promotion of Agricultural Science.

Doctor Waters has been president of the Kansas State Agricultural college since 1909. In 1913 he received the honorary degree of doctor of laws from the New Hampshire State col-

DEAN POTTER WILL SPEAK TO ENGINEERING EDUCATION BODY

Will Also Present Committee Report at Meeting in Virginia

A. A. Potter, dean of engineering in the Kansas State Agricultural college, will address the Society for the Promotion of Engineering Education on 'Occupation and Distribution of Engineering Graduates." The meeting will be at the University of Virginia June 19 to 22.

Dean Potter will also present the report of the institutional committee and will discuss the report of the program committee.

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H. J. WATERS, PRESIDENT Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor ADA RICE, '95, M. S. '12..... Alumni Editor

Except for contributions from officers of the college and members of the faculty, the articles in The Kansas Industrialist are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are invited to use the contents of the paper freely

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SATURDAY, JUNE 3, 1916

Political conventions fill in when war and baseball news is light, at any rate.

Villa is said to be organizing another army. Absence of law doesn't seem to affect his little conscription

At least one thing may be said for the correspondent who wrote the Paris story about using trained dogs and ravens in chasing submarines—he sent the story by mail and didn't make his news association pay cable tolls.

FIGURING THE COSTS

An illustration of the point to which large businesses go in figuring their costs is found in the statistics filed in Ohio by the Baltimore and Ohio railroad with reference to the cost of stopping a train.

The statement asserts that it costs from \$1.35 to \$1.85 to stop a passenger train at a station on the Ohio roads, or an average of about \$1.60 a stop. In other words, with a train making seventeen stops there would be a cost to the railroad of \$27.50 for the starting and stopping alone. Among the items entering into the cost of stopping a train the most important is coal, as when a train is stopped the airbrakes are applied and the coal is used to generate the steam which compresses the air. There is great wear and tear on equipment because of these stoppages, and thoroughly reliable and worthy citithe car wheels, the brake shoes, and zens. the rails are worn away, because of friction. In starting after a stop there is a great expenditure of steam in getting under headway, and there is more wear and tear on equipment.

It is in the small details that the margin of profit or loss in most lines of business is to be found. This has been recognized by large corporations. It is not yet recognized fully by men in smaller business concerns. An accurate cost system is a valuable thing in printing, farming, and general merchandising, as well as in running a railroad.

THE KEYNOTE OF RURAL PROGRESS

Dean Jardine struck the keynote of life when, in the commencement address at Campbell college, he pointed out the necessity of a movement among country people to stay on the farm.

Some years ago, when the drift from the farms to the cities first was notices, a back-to-the-land movement was started. Men in clerical and other positions in cities were urged to go to the country and engage in farming. Some of them succeeded. A great ceeded were men who, though having lived in cities, were through natural ly adapted to farm life. Those who incidental or necessary to the producfailed illustrated the fact that the ma- tion of the crop. jority of city bred men are not fitted for the conditions of the country.

farm boys who have gone to the city. Those few whose mental bent has exactly fitted into urban life have succeeded but the majority have not, and keeping systems have been so simpliit is even harder to succeed in the city fied that anyone with common sense nowadays than it was a few years ago. The inference is not that we need a back-to-the-farm movement to fill in day. And such records make it far the country the places of those who easier to know for certain what price have gone to town, but that we need a to ask for your crop at harvest time stay-on-the-land movement to keep on in order to have a profit on the crop. the farm those whose qualities make Keep such accounts. It is just as them best adapted to farm life. There much worth while as is the spraying of will always be men in the country-a your orchard.-Fruit-Grower. few of them-who should go to the cities to develop their capacities, and there will always be some men born in the cities who ought to go to the farm. With modern specialization, however, the tendency will be for men brought up in the city to find their life work there and for country bred men to find the best realization of their capacities on the farm.

This condition will not exist so far as the rural districts are concerned, however, until educational, religious, and social advantages in the country are on a par with those in the cities. The advantages will not be precisely the same as those in the cities-for simply to ape urban life would be disastrous to the country-but they will be equivalent. And that is the end toward which lovers of agriculture and rural life will work.

HELPFUL BIG BROTHERS

Wisconsin has what is called the 'Big Brother' movement, which is doing a great deal to help boys in the larger cities. It consists of an organization of business men in these cities, who are willing to give some of their time to consulting with boys who for any reason need help. They come in contact with boys through the Associated Charities organization, the visiting nurses, settlement workers, and others, as well as through boys who learn of the movement and come to them direct. These men call themselves Big Brothers, because they act as brothers to the boys. If a boy gets into trouble, he comes to them; they talk things over and see what can be done to help the boy. A large number of boys who must support themselves have been placed in good positions by these Big Brothers. Many of them have been sent to farmers who want boys to help in farm work, and who are willing to treat such boys as their own sons.

The movement has been running in Wisconsin since 1909, and seems to be steadily growing in usefulness. Through it a large number of careless, thoughtless boys, and in some cases bad boys, have been given a new start, and set in the way toward making

There ought to be Big Brothers of this sort in every city in every state in the union; and the movement should have the cooperation of the farmers of the states. Business men and farmers should work together to make useful men of boys who do not have a fair chance at home.-Wallace's Farmer.

THE COST OF PRODUCTION

Business men generally are giving more and more attention to the matter of what it costs them to produce a given article and to the cost of the articles that are placed on their shelves for sale. Farmers are no less business men than the merchants, bankers, economic and social progress in farm and manufacturers of the cities, and as such, are likewise giving attention to what it costs to produce what they have to sell.

Just how to obtain the actual cost of any product of the farm does not stered easy chair made from a barrel end with the cost of the seed and the at a cost of 50 cents; and a bedstead amount of labor that is given to its production. It takes in also such important things as the interest on the investment in implements, live stock, etc., necessary for the production of many of them failed. Those who suc- the crop; the taxes on the land occupied by the crop; rental of the same land; salary of the farmer or manager; bent or through experience particular- and every item that costs money and is

Similar has been the experience of now necessary for a fruit grower to be an experienced bookkeeper to obtain a very fair idea of what it costs him to produce a given crop of fruit. Bookcan keep such accounts with little more effort than a few minutes' time each

THE MULE VINDICATED

Doubtless our subscribers have noticed in the daily papers that the Ken-

In England, in war time, such economies may be laudable. But in this country, at the present time, this kind Oh, who will walk a mile with me of teaching can not be too loudly condemned.

Certain forms of economy are sensible; saving is always a virtue; but the willingness to go without the common decent comforts of life produces a loss of self-respect.

The lower the standard of living, the lower the "living wage"-and the larger the profits of the capitalists.

True patriotism in the United States, at the present time, consists in teaching the poor how to earn money enough to buy better things, and then how to take care of them, once acquired .-Wichita Beacon.

Thrift

Emporia Gazette

TITHOUT me no man has ever achieved success, nor has any nation ever become great.

I have been the bed rock of every successful career, and the cornerstone of every fortune.

All the world knows me and most of the world heeds my warning.

The poor may have me as well as the rich.

My power is limitless, my application boundless.

He who possesses me has contentment in the present and surety for the future.

I am of greater value than pearls, rubies, and diamonds. Once you have me, no man can take me away.

I lift my possessor to higher planes of living, increase his earning power, and bring to realization the hopes of

I make a man well dressed, well housed, and well fed.

I insure absolutely against the rainy day.

I drive want and doubt and care away.

I guarantee those who possess me prosperity and success.

I have exalted those of low degree, and those of high degree have found me a helpful friend.

To obtain me you need put out no capital but personal effort, and on all you invest in me I guarantee dividends that last through life and after.

I am as free as air.

I am yours if you will take me.

I am Thrift.

tucky court of appeals-the highest court in the state-has decided that when a man is kicked by a mule he cannot recover damages from the owner of the mule. In its decision the court said:

"The mule would have been untrue to itself and false to every tradition of its breed if it had kept its heels on the ground and an employee cannot court danger by inviting a mule to kick him and then recover for consequent injuries."

Certainly no man of common sense and ordinary prudence at all acquainted with the mule will put himself within striking distance of the business terminus of the animal just named. And certainly such a man would not expect to recover damages if he allowed the long-eared animal to "hand him one," as it were.

The mule is a most useful and reliable animal. In our opinion the large majority of farmers do not prize him as highly as they should. We are the consistent friend of the mule and are glad to note that the highest court in greatest characters in fiction, the winthe state of Kentucky has proper appreciation of this often abused animal. Illinois Farmer and Farmer's Call.

NOT WHAT COLUMBIA WANTS

At a "patriotic housekeeping" exhibit, Brighton, England, is an upholmade from webbing crossed on wooden frames which took 10 hours to make and cost \$1.37; and a pile of petticoats, waists, slippers, and caps for children made from discarded stocking tops.

In this country social settlement workers are often zealous in teaching the poor similar economies. A favorite scheme is that for furnishing a four-room flat with Morris designs, including everything from a baby's is comparatively easy, and it is not packing boxes.

THE DOORWAY

You can tell as much about a house from its doorway, if you really study the matter, as you can about a man from a handshake. Just as you often intuitively feel, after a handclasp with a stranger, that you are or are not going to cultivate his acquaintance further, so you will or will not instinctively be made desirous by a house's entrance of knowing its interior. A doorway is the most animate inanimate thing I know. And if for no other reason than because of its natural prominence, the front entrance of a house should be made as attractive as architectural style and good taste will permit. It is usually the first detail to be observed by passersby, and therefore creates the most lasting impression.-Charles Alma Byers in the Country Side Magazine.

GREATEST FICTION CHARACTERS

In a competition for a prize offered in England for the best list of the 12 ning list was as follows: Sam Weller, "Pickwick Papers," Dickens; David Copperfield, "David Copperfield," Dickens: Adam Bede, "Adam Bede," George Eliot; Sarah Gamp, "Martin Chuzzlewit," Dickens; Becky Sharp, "Vanity Fair," Thackeray; Porthos, 'Three Musketeers,' Dumas: Tess D'Urberville, "Tess of the D'Urbervilles;" Hardy; Micawber, "David Copperfield," Dickens; Don Quixote, 'Don Quixote," Cervantes; Pickwick, "Pickwick Papers," Dickens; Mrs. Wiggs, "Mrs. Wiggs of the Cabbage Patch," Alice H. Rice: John Ridd, "Lorna Doone," R. D. Blackmore. How many of them do you know?-Boston Globe.

Hang the scythes-not in the apple To obtain the cost of producing fruit crib to a book case, made from old tree, as Daniel Webster did, but under the shed.-Farm Journal.

A MILE WITH ME Henry Van Dyke

Along life's merry way? A comrade blithe and full of glee Who dares to laugh out loud and free, And let his frolic fancy play, Like a happy child, through the flow-

Where he walks a mile with me.

And who will walk a mile with me Along life's weary way?

A friend whose heart has eyes to see The stars shine out o'er the darken-

And the quiet rest at the end of the day,-

A friend who knows and dares to say, The grave, sweet words that cheer the way

Where he walks a mile with me.

With such a comrade, such a friend, I fain would walk till journey's end, Through summer sunshine, winter rain,

And then?-Farewell, we shall meet again!

SUNFLOWERS

After all, Mr. Villa might as well be

A man is blown by the company his wife keeps.

Before long there won't be nothin' left to abbreviate.

People who expect to get married are expecting just about what they will get.

As a target for witticism Verdun is getting almost as frazzled as Ford automobiles.

One year after a man is married he understands why his friends threw old shoes and rice at him.

Young people, who worry about what is going to become of them, shouldn't. Nothing will.

If June brides did not pester us any more than June bugs do, this would not be a bad world-in June.

Please don't take yourself seriously. If you are really determined to get swindled, give somebody else the velvet.

A sick kitten that has just fallen into a rain barrel is a miserable thing. So is a young man who has just fallen in love with a silly, namby-pamby

Perhaps the return to the old dances is due to the fact that trippers of the light fantastic have realized that it's no use trying to shock people any

GOING IN FOR AGRICULTURE

graft the strawberry onto milkweed. Cross the two resulting plants and harvest the fruit. You will have strawberry shortcake. Then cross the humming bird and the lightning bug and you are ready for a lawn social, with plenty of music and no expense for electric lights.—University Daily Kansan.

EQUALIZING FLOW OF LABOR

The whole matter of benefiting city boys whose natural bent is farm work and making farm boys acquainted with the actual conditions they must face in the cities is a present problem of tremendous economic importance. The great development and improvement of farm machinery has tided the situation over thus far, but as our population increases and demand for farm products keeps pace, this question of equalizing the flow of labor from country to city and city to country will have to be undertaken in a systematic manner. Already the farmhelp horizon has brightened considerably, thanks to the aid of improved machinery. Now that the farm day can be shortened and is robbed of much of its old-time life-warping toil, the farm boy is showing more disposition to weigh country advantages before deciding to forsake the farm. -Farm and Fireside

Mrs. Mary O'Daniel Scott, '04, and son, John Marcus, will spend commencement week in Manhattan.

Miss Elva McKee, '14, has accepted a position as teacher of domestic science in the high school at Walton.

Miss Nellie Aberle, '12, has finished her year's work at Fairbury, Nebr., and returned to her home near Man-

Mrs. Elizabeth (Aberle) York, '12, and two sons came Saturday for a week's visit with her parents on College hill.

Mrs. Florence (Sweet) Evans, '07, and son, Earl Edward, of Kansas City, Mo., are visiting relatives in Manhattan.

Mrs. Clara (Newell) Brandt, '96, and son are visiting Mrs. Brandt's sister, Mrs. Nora Hatch, '93, near Manhattan.

Mrs. Dovie (Ulrich) Boys, '03, and children are visiting at the home of her mother and will be here for commencement.

Miss Selma Nelson, '12, has been elected principal of the graded school on College hill. She will be in Manhattan until after commencement.

Miss Vida Harris, '14, has returned from Austin, Tex. She expects to teach for another year in Tillotson college, a missionary school for ne-

Ernest L. Cottrell, '99, was in Manhattan on business this week. He still owns the house which students of other days will remember as the "Cottrell house" just east of the campus.

Mrs. Effie (Woods) Shartel, '85, has gone east for an extended visit. She attends the conventions of National Federation of Woman's Clubs. She chickenpox, or other little troubles. will be present at the wedding of her son, Kent Shartel, in June.

J. L. Jacobson, '15, who taught this year in the Coffeyville schools, will teach in the Salina schools next fall. He was about college for a few days this week making plans to attend the summer session, in which he expects to take work for a state certificate.

Mr. P. C. Vilander, '11, and Mrs. Bessie (White) Vilander, '12, are expecting to spend the summer in Manhattan. Mr. Vilander will return to Peabody next year, having been promoted from the position of principal to that of superintendent of the city

Miss Margaret Lee Whitney, '15, has received the appointment of chief dietitian of the Episcopal hospital at family where, during the afternoon, a Philadelphia, one of the largest hospitals in the United States. Miss Whitney has been taking graduate work at Columbia university, New York City, since leaving the Kansas State Agricultural college.

George E. Maroney, '12, student in the University of Utah, writes that he is progressing nicely with his work in the department of anatomy, and hopes to enter the third year class of Johns Hopkins medical school in the fall. March 22, 1916, Mr. Maroney joined the benedicts' class. His wife is a talented musician.

Mrs. Walter C. Taylor, '07, is spending a few weeks in Orange, Cal., before joining her husband in Mexico City, where he has gone to become secretary of the Young Men's Christian association. Mrs. Taylor was formerly Miss Flora Hull, and was for three years secretary of the Young Women's Christian association at the college.

Captain Pearl M. Shaffer of the Sixth Infantry crossed the Mexican border with the first American troops to enter the southern republic. He writes that the censorship precludes his telling of the troops or military of press reports are a myth. "Picture instead," he says, "a cattleman's parafeet, and grazing-dry at this seasonthroughout the year." Mrs. Zepher- of \$14,000,000.

ine (Towne) Shaffer, '11, is visiting LOSE MILLIONS TO FLY relatives in Saratoga Springs, N. Y.

LIFE MEMBERSHIP PLAN

Enthusiastic and encouraging letters are being received in response to the letters sent out by the board of directors in regard to life membership in the Alumni association. Pledges by alumni total \$640.

Several letters were accompanied by substantial checks. The success of the plan is now assured. It is impossible for the secretary to answer each letter, but she gratefully acknowledges the receipt of encouraging letters from the following:

Mattie Mails Coons, '82; C. B. Ingman, '97; C. J. Burson, '01; Anna Blackman, '97; Clement G. Clarke, '88; Daisy Hoffman Johntz, '00; C. L. Marlatt, '84: Alice M. Loomis, '04: Nicholas Schmitz, '04; Effie Adams, '11; R. C. Ketterman, '15; Victor Cory '04; Stella Mather, '13; Leila Dunton, 10; Frances Brown, '09; Jessie Rey nolds, '06; L. S. Edwards, '03; R. S. Kellogg, '96; Dr. C. W. Williams; K. C. Davis, '91; Fanny Waugh Davis, '91; Albert Deitz, '85; O. I. Oshel, '13; E. H. Freeman, '95; Ruby Buckman, '08; George W. Wildin, '92; Ernest Fox Nichols, '88; Mrs. B. L. Remick, '97; L. A. Fitz, '02; W. B. Gernert, '07; N. S. Robb, '11; Miss Helen Halm, '08; Miss Abby Marlatt, '88; Miss Minnie Copeland, '98.

All but three of these persons have pledged themselves to take out life memberships in the association.

Fanny Waugh Davis, '91, writes from Nashville, Tenn., as follows: "Mr. Davis and I are heartily in favor of the alumni loan fund, and inclose our check for life membership for two. Mr. Davis is on the National Education association program and is planning to attend in July. Ivy Harner Selvidge, '93, is our next door neighbor, and our children play and fight together every day when they haven't got the whooping cough, B. F. Pratt is a graduate student and assistant here at Peabody college. He will receive his master's degree in June."

OMAN IN IDAHO

A. E. Oman, '00, forest examiner in the forest service, with headquarters in Weiser, Idaho, spent three weeks during April superintending a big forest planting operation on the Pocatello forest reserve. Before leaving Pocatello he found opportunity to renew acquaintance with a number of Kansas State Agricultural college graduates and meet their families and friends.

Mr. Oman was hospitably entertained at Sunday dinner at the home of Mrs. Eleanor White Sullivan and number of the local "clan" of K. S. A. C. people gathered. Among those present were Murry Cole, '02, and family, Delmer Randall, '99, Mrs. Howard Van Everan of Thurman, Wyo., Phil Van Everan, and Mrs. Barnhouse.

On the Tuesday following the gathering at the Sullivan home, Mr. Oman visited Mr. and Mrs. Floyd Howard, who live on the technical experiment farm at Pocatello.

ANOTHER ALUMNUS GETS \$10,000 A YEAR SALARY

George W. Wildin Is Mechanical Superintendent of Well Known Eastern Railway-Employs 10,000 Men

R. S. Kellogg of Chicago must now share with George W. Wildin of New Haven, Conn., the distinction of being the highest salaried graduate of the Kansas State Agricultural college. Mr. Wildin, like Mr. Kellogg, is re-

ceiving \$10,000 a year. Mr. Wildin received his degree from the college in 1892, and immediately entered engineering work, occupying a variety of subordinate positions, such as fireman, locomotive engineer, and operations, but that the burning sands draftsman, to gain a thorough knowledge of railroad work. He is now mechanical superintendent of the New dise, with broad, rolling, well watered York, New Haven, and Hartford railvalleys, an elevation of 5,500 to 7,500 way, has under him 10,000 men, and is responsible for the annual expenditure

FARMERS WILL SUSTAIN HEAVY DAMAGE FROM INSECT

Ravages of Pest Are Severe in Eastern Two-thirds of State—Wheat Growers Can Only Prepare to Take **Precautions Next Season**

Damage to Kansas wheat by the Hessian fly is estimated in millions of dollars by J. W. McColloch, instructor in entomology, Kansas State Agricultural college, who has inspected fields in practically every section of the state. Thousands of acres of wheat will never be harvested.

"Damage is severe in the eastern two-thirds of the state," says Mr. Mc-Colloch. "That it is serious is shown by the way it has affected the wheat market.

"Nothing can be done to control the insect at this time, but the farmer should keep in close touch with the situation, and immediately after harvest start to put into practice the methods of control that have been found practical and effective.

DISK STUBBLE AFTER HARVEST

"The stubble should be disked immediately after harvest. This starts the growth of volunteer wheat and tends to bring an early emergence of the fly. It also makes plowing much easier at a later date. Three or four weeks after being disked, the ground should be plowed at least six inches deep and all volunteer wheat and stubble buried. This will also bury practically all the flies."

The agronomy department of the college has shown that where the ground is prepared in this manner not only does it produce maximum yields, but the crop may be planted with safety later in the season.

The sowing of the crop should be delayed until the fly-free date which the entomology department will furnish any farmer for his particular section of the state. The date of safe sowing in average years is at least as early as the date on which wheat should be sown to make maximum yields. To obtain the best results in controlling the Hessian fly farmers should cooperate in fighting the in-

LEARN HABITS OF PEST

"In order to fight the pest successfully the farmer should know something of its life history and habits,' says Mr. McColloch.

"The Hessian fly passes through four different stages in its development-adult, egg, maggot, and flaxseed. The adult fly is a small, longlegged, dark colored insect, resembling the mosquito. The eggs are reddish and are usually deposited in the grooves on the upper surfaces of the leaves. The maggots are whitish n color and are found between the leaf sheath and stalk either at the crown or at one of the joints. The flaxseed, or resting stage, resembles a real flaxseed. It is found in the late fall or after harvest, just above the crown or at one of the joints.

LIFE HISTORY OF FLY

"The life history of the Hessian fly is subject to great variation but in general it follows a rather definite course. The adult fly begins to emerge about the first of April from the flaxseeds that have passed the winter in the volunteer and regular crop of wheat. The fly deposits eggs in the grooves along the upper surface of the wheat leaves. The eggs hatch in from four to eight days. The young maggots work their way down the leaf to a place between the sheath and stalk where they feed, grow, reach maturity, and transform into flaxseeds.

"By the last of May the supplementary brood is out and the life history is repeated. After harvest the flaxseeds of this brood may be found just above the crown or just above one of the joints. The main fall brood appears from the middle of August to the middle of September. The life history is repeated and by the first of November the flaxseed is found just above the crown between the leaf brood emerges from these flaxseeds. kota Farmer.

"Infestation in the fall wheat comes from the previous crop and volunteer wheat."

WHERE DAMAGE WAS PREVENTED

That many farmers are successful in preventing serious damage by the Hessian fly is well illustrated in the eastern part of McPherson county and the western part of Marion county this year. In this region the control measures advocated on the Hessian fly special conducted by the agricultural college in coöperation with the Santa Fe railway in June, 1915, were put into effect by the majority of the farmers.

Methods of control recommended were a thorough preparation of the seedbed, the destruction of the volunteer plants which appeared between harvest and seeding time and the delay of seeding until in the neighborhood of the fly-free date. While it was difficult to keep down the volunteer wheat, due on account of the unusually wet season, practically all the farmers in the region mentioned coöperated in sowing the wheat after the fly-free

In the western part of McPherson county and in Rice county, on the other hand, much wheat was sown before the fall brood of flies had laid its eggs and as a result the wheat is very badly damaged. In this section the attendance at the Hessian fly special was comparatively small and there was little coöperation in the communities in employing fly control methods.

WHEAT SOWN TOO EARLY

Inquiry about seriously damaged fields made by the representatives of the agricultural college who have inspected the wheat throughout south central Kansas has revealed in many cases that the volunteer wheat was not kept down and the wheat was sown much earlier than it should be in a fly infested territory.

It was very difficult to keep volunteer wheat down last season, but wherever the majority of the farmers in a community delayed the seeding until about the fly-free date for that community, the wheat is comparatively little damaged from the pest this year. Earlier sown fields are seriously damaged and a large acreage is being pastured, has been listed to corn, or plowed and planted to other crops. The counties most seriously affected are Reno, Stafford, Pratt, Rice, Barton, and parts of Sedgwick, Saline, and Ellsworth.

An extensive survey is being planned by the extension division of the agricultural college in some of the fly infested counties, to demonstrate the relation between the time of sowing in 1915 and the yield of the crop in 1916.

KANSAS GIRL TO ASSIST IN

Miss Mary Wright Has Had Wide Training and Experience

Miss Mary Wright, a graduate of the Kansas State Normal school, has been appointed specialist in domestic art in the division of extension, 'Kansas State Agricultural college, to assist in the extension school work in home economics throughout the state. She will take up her new duties September 1.

Since completing her work in the normal school, Miss Wright has taught one year in the Boys' Industrial school at Topeka, one year in the public schools of Greeley, Col., and one year in the high school of Tacoma, Wash. She also has studied in the American College of Dressmaking and Tailoring in Kansas City and has taken a course in millinery, textiles, and art needlework at Stout institute, Menomonie, Wis. During the year 1914-1915 she studied designing and costume drawing in the University of California.

A subscriber writes: "One of the chief requisites for successful farming is a good outfit of neighbors," and he states that he has them. It is a safe guess that he himself is a good neighpassed in this stage and the main have good neighbors to be one?-Da-

NEEDS OF DAIRY BARN

SUNSHINE, FRESH AIR, WARMTH, AND COMFORT ARE ESSENTIALS

lean Milk Can Be Produced at Low Cost for Equipment, Points Out Specialist-Almost Any Stable May

Be Properly Remodeled

Sunshine, fresh air, warmth, and comfort are the main essentials of a sanitary dairy barn, asserts J. B. Fitch, associate professor of dairy husbandry in the Kansas State Agricultural college.

"Many farmers have the idea that expensive barns and equipment are necessary for the production of clean milk. This is not the case," says Professor Fitch. "There are many cases where thousands of dollars are invested for equipment and conditions are ideal, but lack of proper methods and of cleanliness results in low qual-

"Farmers can instal some type of swinging stanchions, gutters, and a ventilating and lighting system at a low cost. Almost any stable can be remodeled into a good milking barn. In building a dairy barn, one must keep in mind the cheapness of construction and the ease of keeping both the barn and the cows clean.

CONCRETE MAKES BEST PLATFORM

"Proper construction of stalls and gutters assists materially in keeping the cows clean. The stalls should be so constructed that they can be regulated to the size of the cows. This can be accomplished by building the platform wider at one end of the barn than at the other. For the smaller dairy breeds like the Jersey, a distance of 41 feet from the manger to the gutter is sufficient, while for the larger breeds, like the Holstein, the distance should be five feet. The stalls should be at least 31 feet wide."

Platform and gutter should be made of material that does not take up moisture, according to Professor Fitch. Concrete meets this need better than any other material because it is cheaper, more lasting, and easier to construct. Some dairymen object to its use because it is cold for the cows to stand upon. This can be overcome by placing boards over the concrete or by using creosoted blocks where the cows stand.

CURRYING SECURES MORE MILK

Cows should be curried before each milking. Not only does this result in cleaner milk, but experiments show that cows properly curried will produce more milk. The skin is kept in an open condition, which adds to the animal's comfort. Currying also acts as a stimulant.

The milkers should be cleanly and should milk with dry hands. Covered milk pails must be used because they present less surface into which dirt particles can fall. After the milk is drawn it should be cooled at once and kept at a low temperature until delivered.

Good dairymen never allow their cows to stand out in the cold. They realize that it takes an extra amount of feed to keep the cows warm. It is sometimes stated that close housing impairs the health of cows. This is not the case when provision is made for proper ventilation of the barn.

HOLTON ELECTED TO PHI BETA KAPPA AT INDIANA

Professor of Education Receives Honor from Scholarship Society

Edwin L. Holton, professor of education in the Kansas State Agricultural college, has been honored by an election to Phi Beta Kappa, the oldest honorary scholarship fraternity in America. The election is from Gamma chapter of Indiana, located at Professor Holton's alma mater, Indiana university.

Each chapter of the society may elect each year a small number of the alumni who have distinguished themselves in scholarly work after graduation.

Since January 1, 1,255 newspapers sheath and the stalk. The winter is bor-for are we not told if we would and other periodicals have gone out of business in Germany.-Editor and Publisher.

WHY CORN YIELD IS LOW

L. E. CALL EXPLAINS REASON FOR 40 YEARS' DECLINE

Grow Legumes, Take Care of Organic Mat ter, and Prevent Soil Erosion, Advise Agronomists-Green Manuring Crops to Supply Nitrogen

Declining corn yields in Kansas since 1875 are due principally to failure to practice a rotation in which a legume is grown; to useless waste of barnyard manure, straw, and corn stalks; to improper use of the lister; and to selling plant food in the form of grain, according to L. E. Call, professor of agronomy in the Kansas State Agricultural college.

In counties where legumes are grown as a part of the rotation no such marked decline in yield has taken place, points out Professor Call. Farmers in counties where they can be grown will benefit by the introduction of alfalfa, sweet clover, cowpeas, or soy beans.

The most noticeable decline has been in those counties in which alfalfa has not grown successfully on account of the soil acidity. In soils of this nature, other legumes, such as cowpeas and soy beans, should constitute this important part of the rotation.

SOME STILL BURN STRAW

It is a noticeable fact that the farmers are now taking much better care of the straw stacks, corn stalks, and other organic matter on the farm than they did 10 years ago, but there are still many who think the only way to get rid of the straw stack is to burn it. Owing to such practices as this the organic content of a few Kansas soils has been decreased from 122,000 pounds to 85,000 pounds per acre since cultivation began.

Listing with the slope of hillsides instead of across the slope has caused increased soil erosion. If the ground is listed crosswise a greater amount of moisture will enter the soil, and in the case of large rains the run-off will be checked.

"The one-crop system used so commonly in Kansas must give place to a more systematized type of farming,' says Professor Call. "The value of plant food sold from Kansas in the form of wheat is estimated at \$21,000,-000 annually. This system cannot continue if the fertility of the soil is to be maintained."

BARNYARD MANURE FOR FERTILIZER

Back to the farm with the barnyard manure is a good slogan for the Kansas farmer, in the opinion of R. I. Throckmorton, assistant professor of soils.

"The use of manure and a system of best way to build up the soil," says cheap and contains phosphorus, potassium, and nitrogen in addition to organic matter. It improves the texture of the soil, permits aëration, and increases the water holding capacity.

"This organic matter incorporated in the soil is also used as food by the nitrifying bacteria which collect nitrogen from the air. Legume crops add the nitrogen which they collect from the air, to the soil by their roots and also by the leaves which fall to the ground in harvesting.

COMMERCIAL FERTILIZERS ARE COSTLY

"Commercial fertilizers add plant food, but they are expensive. The cost of this kind of fertilizer limits its use chiefly to the garden and truck crops.

"Farmers should stop the practice of burning their straw stacks, corn stalks, and should begin the practice of building up the soil by the use of barnyard manure and other forms of organic matter. This way of building up the soil has always been the most economical and practical for any class of farmers."

Plowing under green manure crops will help the Kansas farmer conserve and build up the fertility of his soil, many Kansas soils needing nitrogen, and with nitrogen in the form of com-

pound, the problem of supplying this element is difficult unless nitrogen can be supplied by some natural method. Green manuring crops properly used offer an economical and effective solution of the problem.

EFFECT DIRECT OR INDIRECT

Any crop that will supply organic matter or nitrogen to the soil when turned under is a green manuring crop.

The effects of a green manuring crop may be either direct or indirect. They are said to be direct when the yield of the following crops is influenced. When this is not the case, but the physical condition of the soil is improved, the effect is indirect.

Green manuring crops may be either eguminous or non leguminous. Some legumes used for this purpose are cowpeas, red clover, field peas, soy beans, and vetch. Rye, buckwheat, and rape are among the most commonly used non leguminous green manure crops.

The cowpea is particularly well adapted to eastern Kansas conditions since it fits well in the crop rotation, and may be sown either after the wheat crop has been harvested and plowed under before frost, or it may be sown with corn, and pastured off by means of hogs in the fall.

KEEP ABLEST ON FARM

(Concluded from Page One)

move to the city where many of them are misfits and where they are constantly at cross purposes with the cityborn and city-bred.

TO CHECK CITYWARD MOVEMENT

"Something must check this cityward movement. Such men must be kept on the land as leaders in the biggest business in which Uncle Sam is engaged-agriculture. Because tenants are not land owners and are more or less migratory, they are not interested in the protection of the natural soil fertility out of which future generations must be fed, nor do they desire to invest in good schools, churches, roads, or any movement for rural up lift. Just as long as national agriculture is dominated by such a class, one cannot expect to reduce the cost of living, nor to keep it from soaring to still greater heights. Under such circumstances efficiency of agricultural production will retrograde rather than

"It is the belief of those who have studied this question most closely that the only way by which an ideal country life condition can be reached is through education. As effective an education must be provided for the children of the country as in now available for city children, and to make this possible the coöperation of city folk as well as of country folk rotation of crops in which a legume is will be required. The cities of Kansas grown form the most economical and are nothing more than by-products of the farm, and the prosperity of the Mr. Throckmorton. "The manure is city business man is dependent upon the prosperity of the farming community which surrounds it. Whatever the city does for the country it does, therefore, for itself.

RURAL LEADERS IN DEMAND

"To effect this result leaders are needed-broadly trained men and women who are willing to devote their lives to this work. The two institutions through which they will be able to render the most effective service are the country school and the country church, as teachers and as pastors. But before complete success can come to the movement, these leaders who are giving their lives to rural uplift must have the active cooperation of editors, bankers, and other city folk, and thus bring about a better understanding and better balanced condition between rural and urban interests. Bankers, editors of farm journals and newspapers, chambers of commerce and other organized groups which represent the business interests of the country, Young Men's Christian association workers, railroad companies, manufacturers of farm implements, and others all along the line, must cooperate in furthering an educational propaganda in the interest of better agriculpoints out Mr. Throckmorton. With ture and a better country life condition. Much is already being done. Bankers take an active interest in the mercial fertilizers selling at 24 cents a training of farmers. Likewise editors after thorough professional training is the supreme need of the country." turned nozzle."

and railroad companies are maintain- and a reasonable and satisfactory ing departments of agricultural extension. But more is needed, and just substitute teachers. Their annual salwhat each of these different agencies must contribute to accomplish the desired end is a question worthy of serious consideration.

BETTER FARMING, BUSINESS, LIVING

"Better farming, better business, better living, should be the national slogan. Country life can be made satisfying only through the harmonious upbuilding of the rural community. In pioneer days the farm home was industrially the foundational institution of society and was necessarily a unit in itself. In the present age of specialization, when no person or organization is able to attain highest development through the jack-ofall-trades route, the larger unit, the community, has become the important factor in country life. The school, the church, the Young Men's Christian association, the Young Women's Christian association, farmers' clubs and coöperative associations of various kinds, must develop this unit to effect progress.

"Never before in history has it been truer that the individual must rise or fall with the group. The application of modern science to the field of agriculture makes associative and cooperative activities essential to rural success. The thorough and effective means of introducing this new spirit into human lives is through the youth of the land who must be reared to see the new and broader meaning of the old maxim, 'In unity there is strength.

SCHOOL REPRESENTS COMMUNITY

"The school is the institution of the people that will be most efficient in this line. Because of its democratic nature and its public support it represents the whole community. The church too frequently represents only its members, and the grange or other farmers' club its own patrons. The school, however, is of vital concern to every individual in a neighborhood. Throughout the years, the rural schoolhouse has been the emblem of Amer ica's pioneer civilization. Yet rural education has lived up to its opportunities in only a few rare instances, and the little-progressive rural education found in this country can be stimulated, for example, by a system like that of Denmark, which country in the last fifty years has accomplished the greatest rural uplift the world has ever known.

"Undoubtedly the most potent and far reaching factor in the solution of the rural problem must be the rural school. Its proper redirection and revitalization will require those devoted rural leaders as teachers through whom the entire spirit of country life may be changed.

DENMARK IN RURAL EDUCATION

"Denmark furnishes the best illustration the world has ever known of what can be done for rural life by proper education. In 1864 Denmark was as dependent and bankrupt a nation as could be found in the occidental world. Necessity set her at work to redeem herself. Some of her best leaders, notably Bishop Grundtwig, famed as the originator and organizer of her present folk high schools, determined to begin at the bottom and build up the nation through her schools. Slowly they were formulated and popularized and became a power in promoting the prosperity of the nation.

"Today her small farmers, formerly the low and oppressed class, have become the controlling power of the state, and for a wholesome, beautiful, happy, prosperous country life, Denmark sets the example for the world. Her schools, which have been developed in the last half century, receive practically the entire credit. Her rural schools, folk high schools, agricultural schools, and schools of home economics are famous in every civilized nation for adaptability to local needs, efficiency, and rural leadership.

TEACHING AS LIFE WORK

"The teachers, three-fourths of whom are men, are from 30 to 70 years of age all. and are given permanent appointments

period of service as assistant and ary, conservatively evaluated according to the purchasing power of our dollar, varies from \$900 to \$1,800. A score or more years of tenure in one community is the rule.

"These teachers rank high socially, and in general are community leaders and organizers. They are furnished comfortable homes, with fuel and land for garden, and are made real members of the communities in which they work. They are influential factors in entire community life. All are skilled in music and gymnastics. They are commonly church choir directors and leaders in all forms of rural recreation. Truly they become the connecting link between the people and their opportunities, and enlist the local talent of their communities to bring about a condition of contentment and better living for all.

AMERICA SHOULD FOLLOW

"When our rural education shall be as properly and adequately reorganized, redirected, and adapted to our local conditions and needs as is Denmark's, when our rural schools serve the entire rural community and are interested in and leaders of every vital interest of the community; when these schools furnish as adequate educational opportunities to country boys and girls as city schools do to the boys and girls of our industrial centers; when these teachers as rural leaders shall foster coöperation and suitable, social, cultural, economic, and religious organizations, and shall be instrumental in securing the proper assistance and service of higher edutional institutions, then, and not till then, will a most powerful means of permanent rural growth be instituted. And rural decline means national decline, while rural progress means national progress.

CHURCH NEEDS COUNTRY LEADERS

"Rural districts can be inspired, moreover, by a church that can vitalize the principles of abundant, unselfish social life. But they cannot be vitalized until they have a real rural leader for their pastor. He must be a shepherd having an adequate flock to serve and must serve it with enthusiasm and ability. City pastors preaching at country congregations can never be more than ineffective advocates of Christian principles. Give the rural community church a whole man for a pastor and a leader; put him on the job seven days in the week and 52 weeks in the year, including a reasonable vacation. Provide him with a small tract of ground, a parsonage, and a living wage, and make him a power for leading his charges into ideal prosperity.

"The rural pastor must above all be a man of vim and vision, thoroughly in sympathy with rural life and determined to devote his life to its improvement. He must study and know his own field in every detail, be a keen observer, render service to his people in their everyday needs, merge his life with theirs, and bear upon his shoulders the most material and economic burdens of the community, as well as inspire the daily life of his people with high ideals.

NEW RELIGIOUS FEELING ARISES

"In the growing consciousness of the need of scientific agriculture there is now arising a new ethical and religious feeling among country people. Never did the need for unselfish service and brotherly spirit have such economic importance as in the communities of organized and scientific farmers of today, the only rural communities capable of permanent progress.

"The greatest opportunity of the age for useful leadership and large service is open to the able pastor of the church that will serve modern rural needs. Every problem of economic welfare and rural uplift is his problem, and when a church acquires the repurespect, coöperation, and support of

KILL INSECTS IN GRAIN

FUMIGATION DESTROYS PESTS FOUND IN STORED CEREALS

Carbon Bisulphide Is 100 Per Cent Effective When Properly Used-Professor Dean Explains Also How to Control Melon Louse

Carbon bisulphide should be used to control all insects infesting grain stored in bins and granaries, according to George A. Dean, professor of entomology in the Kansas State Agricultural college.

"The fact that millions of dollars are lost each year through the work of insects in stored grains is evidence enough that more attention should be given to the control of the insects causing the loss," says Professor Dean. "Carbon bisulphide is 100 per cent effective when properly used.

"Fortunately, it matters little what species of insects may be causing the trouble, for all succumb to the same treatment. Fumigation with carbon bisulphide is the simplest and most effective means of controlling the insect infestations when the grain is stored in a tight bin. Carbon bisulphide is not recommended for flour mills and grain elevators because of the danger from fire. The vapor from this liquid is highly inflammable and explosive.

WARM WEATHER IS BEST TIME

"The amount of the liquid to be used depends on the temperature, on the size and shape of the building, on its tightness, and on the nature of the attack. It is useless to fumigate when the temperature is below 60 degrees. The best results are obtained when the temperature is above 70 degrees.

"If the building is reasonably tight, five pounds of carbon bisulphide is sufficient for every 1,000 cubic feet of space, or one pound for every 25 bushels of grain. In case the building is not tight, the amount of the liquid should be doubled."

To insure perfect fumigation, points out Professor Dean, the building must be nearly air tight, in order that the vapor may remain in all parts of the space in full strength and for the required time, which is 36 hours. If the grain is not to be used for germination, 48 hours gives the best results.

PUT IT AT TOP OF BIN

As the liquid is heavier than air, it should be placed in shallow pans at the top of the bin or building. It should be well distributed, not more than a pound in a place, so that the vapor will spread uniformly throughout the grain.

In large bins, to hasten the process, it is advisable to thrust a gas pipeloosely plugged at one end-down into the center of the bin through which the liquid may be poured. The plug should then be loosened with a rod.

After the fumigation has progressed for the proper length of time, the building should be thoroughly ventilated one or two hours before being entered.

SPRAY DESTROYS MELON LICE

The melon or cucumber louse which causes the leaves of cucumber and melon vines to curl and die can be controlled by the use of one of two effective sprays, according to Professor Dean.

"As soon as the lice are discovered they should be thoroughly sprayed with either 'black leaf 40' or a strong soapy spray," says Professor Dean. "The 'black leaf 40' spray is prepared by dissolving three-fourths of a pint of 'black leaf 40' and four pounds of common laundry soap in 100 gallons of water. The soapy spray is prepared by dissolving one pound of common laundry soap in six gallons of soft water.

"In applying either of these sprays, the essential thing is to strike or wet every insect. The liquid must be applied by the use of a spraying appatation in a community of rendering a ratus, and when there are several helpful, loving service to all in need, plants the common knapsack sprayer it is a church that gives and promotes is best. The extension rod furnished the abundant life and commands the with these sprayers should be replaced by one long enough to reach from the hand to the ground without one's "The need for rural religious leaders stooping, and equipped with an up-

NO HAY FOR ORCHARDS

CULTIVATION WILL ADD TO PROFITS SAYS HORTICULTURIST

Intercropping May Be Practiced Success fully When the Trees Are Young-Potatoes and Watermelons Are Desirable for this Purpose

The cultivated orchard is more productive and consequently more profitable than the average orchard, which is neglected or in which grass or hay is grown, asserts F. S. Merrill, assistant in horticulture, Kansas State Agricultural college.

"In the young orchard, however, a judicious system of intercropping may be practiced without causing injury to the trees, and at the same time profitable crops will be produced in the waste space between the rows," says Mr. Merrill. "Sufficient space should be left on each side of the tree to permit thorough cultivation of the tree rows. As a general rule, the roots of the tree extend beyond the outer ends of the limbs. A strip may be left proportionate in width to the spread of the branches.

FRUIT TREES SOMETIMES USED

"One of the most familiar types of intercropping can be found in planting fillers between the permanent trees, and often between the rows. The peach or some type of early maturing apple can be used for this purpose, but in most cases the grower will not remove the fillers until they have attained such size as to have interfered with the permanent trees. For this reason the use of trees as an intercropping sys tem should be discouraged.

"A more successful system of turning to practical account the waste space may be found by utilizing one of the cultivated crops, such as potatoes. In sections where the fruit growing industry has been well developed the use of small fruits has been a successful practice. Such fruits as the blackberry and the raspberry, however, cannot be so thoroughly cultivated as some of the general crops and for this reason will not have so beneficial an effect upon the soil."

SHOULD USE DIFFERENT FOOD

An ideal crop is one that does not utilize the same type of plant food as the early part of the season, and does drouth, in the opinion of Mr. Merrill.

usually of alfalfa because of its heavy drain on the soil moisture, is questionable, he contends. Watermelons have been raised profitably without apparent injury to the growing trees.

After the trees become well grown and approach the age of profitable bearing they should not be forced to compete with other crops for plant food and moisture. In such an orchard, where the danger from washing is not great, a system of clean cultivation usually will be found most successful. This will include light plowing or disking in the early spring. This treatment aërates the soil, increases the supply of available plant food, makes possible the absorption of a large amount of spring rain water, besides furnishing a more favorable medium for the development of the young roots.

KEEP THE WEEDS DOWN

This should be followed by a harnecessary to cultivate up to the trunks of the trees, since the most extensive the forks. feeding roots of a tree are at some distance from the trunk.

branches will secure the best results to table decorations.

cultivation should not be carried on after the middle of June since at that time the normal wood development of the tree should have been completed and the formation of fruit buds should be encouraged rather than wood pro-

duction. A tree that is forced to produce a large wood growth late in the summer will not set a full crop of fruit buds, since the heavy fruit and wood production rarely coincides, points out Mr.

A system of clean cultivation, if practiced continually, may result in lowering the amount of humus in the soil. For this reason it is sometimes necessary to plant a cover crop in the fall that is to be turned under in the spring or to apply a large quantity of barnyard manure in the fall or spring. The first method is to be preferred on the hillside localities or where there is a probability of blowing or washing of the soil during the winter months.

DEAN BURDICK TO MAKE PHI KAPPA PHI ADDRESS

New Event Is Added to College Commence ment Week This Year-Studious Seniors to Be Initiated

A new event will be added to the commencement week of the Kansas State Agricultural college this year when on Monday evening Dr. William L. Burdick, dean of the college of law in the University of Kansas, will make the first annual Phi Kappa Phi address. The program of the evening will be given in the auditorium, and the public is invited. Doctor Burdick is a speaker of unusual ability. His subject will be, "Educational Ideals."

Phi Kappa Phi, national scholarship society, was installed here early in the present college year. It has elected this year and will elect each subsequent year .7 per cent of the graduating class on the basis of scholarship. The society has approximately 25 chapters. Three new ones were recently installed in the University of Arizona, the University of New Mexico, and Syracuse university.

The initiation of new members will take place at 11 o'clock Wednesday morning, and will be followed by a luncheon at which Dr. Edward H. Reisner, associate professor of educathe orchard tree, makes its growth in tion, will preside. The speakers will be Dr. H. J. Waters, president of the not conflict with the trees for moisture college; Miss Margaret Haggart, produring the late summer and early fall fessor of domestic science; W. A. nonths when there is a possibility of a Cochel, professor of animal husbandry; R. A. Seaton, professor of applied The use of such crops as wheat, and mechanics; and Dr. J. E. Ackert, assistant professor of zoology.

THERE'S ONE RIGHT WAY OF SETTING THE TABLE

And Girls at the Agricultural College Learn It—Arrangement Is Simple

Setting the table three times a day every day of the year is an art if the task is performed correctly. There is one right way to set the table and not a million, say domestic science ex-

The girls that study dinner work in the Kansas State Agricultural college are taught the right way. The knives are placed in the order in which they are to be used at the right of the plate with the sharp edges turned inward The spoons are placed at the right of the knives with the bowls turned up. The forks are at the left of the plate, with the tines up.

The glass has a correct place at the rowing or cultivation to keep down tip of the knife but slightly to the weeds, to conserve moisture, and to right. The napkins are laid at the aid in the plant development. It is not left of the plate with the loose edges parallel to the edge of the table and

When guests come and place cards must be used to seat the guests easily, An extension disk or harrow that they are placed upon the napkins. will allow the operator to stir up the A plain white place card is always in soil under the ends of the spreading good taste. Simplicity is the keynote

PRIMARY INTEREST OF KANSANS IS NO LONGER POLITICS

Dr. James Wilson, Former Secretary of Agriculture, Praises College, Its President, and Its Service to People of State

"Kansas is turning from a primary nterest in politics to a primary interest in agriculture," declared Dr. James Wilson, for 16 years United States secretary of agriculture and one of the leading agricultural figures of America, who was at the Kansas State Agricultural college Tuesday and Wednesday.

"The field of study and practice in agriculture is practically limitless,' continued Doctor Wilson. "There are problems of soils, crop production, and animal breeding to be solved every

"Kansas, like every other farming state, needs more interest in domestic animals. A successful agriculture cannot be built up on the basis of raising and selling grain. The state needs more dairying, for which it is unusually well adapted. It needs more live stock of every kind."

STATE TO BE CONGRATULATED

The state, in the belief of Doctor Wilson, is to be particularly congratalated on its agricultural college.

"I have just visited 12 agricultural colleges," he said, "and none of them s doing more for the people of its state than is this one. The way in which your college is reaching out to help the men and women and boys and girls of the state would seem incredible to a man unfamiliar with its work.

"I had known President Waters for many years, and I had expected great things at the college under his adminstration, but even with my expectations as high as they were, I am surprised at the wonderful things that are being accomplished."

Secretary Wilson is interested especially in work among boys and girls. When he was secretary of agriculture, he introduced the crop contest plan among the children of the south, with unprecedented results. He regards efforts of this kind, together with the teaching of agriculture in the schools and colleges, as among the most hope ful signs for a practical farming system of permanent worth.

EAST TAKES NEW INTEREST

Agricultural education, Doctor Wilson states, is occupying a more and more prominent place in the east, where formerly it attracted no interest. Agricultural colleges and experiment stations have there, as in the west, produced crop yields per acre much in excess of those obtained by farmers in the state, and have in this way drawn attention to the educational and investigative work.

Doctor Wilson was engaged in farming in Iowa for a number of years. He was successively a member of the legislature, of the board of regents of the university, and of congress. He was for seven years director of the agricultural experiment station and professor of agriculture in the Iowa State college. From 1897 to 1913 he was United States secretary of agriculture. He is now on the staff of the Agricultural Digest, a new magazine established for the purpose of presenting summaries of the most modern thought and practice in agriculture.

MULCH YOUR ROSES IN JUNE, ADVISES GREENHOUSE EXPERT

New Dressing Will Not Be Needed Till the Following Spring

Roses should be mulched this month, according to W. R. Leighton, who is in charge of the greenhouses at the Kansas State Agricultural college.

"This is done by applying well rotted manure around the roots of the ers.

with the least possible injury. This NOW TURNS TO FARMING plants," says Mr. Leighton. "A covering of some green material, such as grass, should be applied to the manure to keep it from drying out. This may be left until next spring, when a new dressing should be applied.

"Powdery mildew and the green bugs are among the worst enemies of the rose. The mildew may be controlled by applying sulphur in the powdered form early in the morning once every 10 days. The green bugs are controlled by spraying them with one part of black leaf 40 to 200 parts of water.

"The green aphis will make its appearance with the flower buds and must be fought with a soap or nicotine spray. Do not use arsenate of lead on roses because it whitens and disfigures the leaves. White hellebore, applied by means of a powder bellows while the dew is on the plants, serves well. On dry foliage it can be used in liquid form."

BULLETIN WRITERS TRY TO REACH THE FARMERS

Problems Are Now Approached from Prac tical Standpoint, Says Prof. H. W. Davis-Better Illustrations

Investigations of recent popular farm bulletins show that most of the writers are consistently attempting to present farm questions so that they can be readily grasped by the farmers, according to H. W. Davis, associate professor of the English language in the Kansas State Agricultural college.

"The bulletin writers of several years ago seemed to delight in scientific discussion and the use of technical terms," says Professor Davis, "but the present writers are inclined to approach all questions entirely from the farmer's viewpoint. Technical discussion and technical phraseology are now avoided as far as possible.

"A decided change is noticed in the tendency to make the bulletin shorter and more to the point. Bulletins now run from 30 to 45 pages. By the use of a superior grade of paper, better results in illustrations are obtained. Long, involved tabulations, formerly used, are at present simplified so that their meaning may be grasped without much study."

SHIELDS IS FIRST IN SPRING INDUSTRIALIST COMPETITION

Miss Pearl Dakin and Floyd Hawkins Nex in Journalism Copy Race

In the spring term INDUSTRIALIST place, and Floyd Hawkins third.

As a prize for being the student who got the most copy printed in THE INDUSTRIALIST during the present term Mr. Shields will receive his choice from a list of standard farm papers. The second and third prizes in order are a leather bound pocket edition of a book of synonyms and a cloth bound volume of the same work.

Those deserving especially honorable mention are: F. E. Mixa, D. E. Hull, H. W. Phillips, B. Crow, I. J. Freeman, L. R. Hiatt, Charles V. Kershaw.

SWANSON AND TAGUE WRITE SCHOLARLY CHEMICAL PAPER

Experiment Station Men Make Study of Enzymes in Wheat Flour

C. O. Swanson and E. L. Tague of the chemistry department of the agricultural experiment station, are the authors of a scholarly paper, "A Study of Certain Conditions which Affect the Activity of Proteolytic Enzymes in Wheat Flour." The paper is published in the Journal of the American Chemical Society and has been reprinted in pamphlet form.

The paper is based on experiments with a high grade patent flour manufactured by the department of milling industry of the college. Further investigations are planned by the writ-

TO KILL JOHNSON GRASS

THOMPSON ADVISES KEEPING WEED DOWN IN EARLY SUMMER

Oat or Wheat Crop Answers Purpose, Says Authority—This Should Be Followed by Midseason Plowing -Rootstocks Go Deep

Kansas farmers who planted oats containing Johnson grass, an undesirable weed, should destroy the pest this summer or in the fall, according to G. E. Thompson, specialist in crops, division of extension, Kansas State Agricultural college.

"Definite records show that 50,000 bushels of oats containing Johnson grass seed were planted in the state last spring," says Mr. Thompson, 'and it is safe to say that more than twice that amount was actually planted.

"Johnson grass is a weed pest because of the large underground rootstocks which cause the plant to spread rapidly and enable it to live over from year to year. Yet it is hard to get and maintain a stand sufficiently good to make a satisfactory meadow-and in Kansas Johnson grass is worth but little for pasture. The large bunches, or clumps, of Johnson grass as they appear in the fields interfere with cultivation, prevent getting uniform stands, sap moisture and plant food from the cultivated crop, and are a nuisance at harvest time.

MAY NEED FALL PLOWING

"If during the early and middle part of summer the Johnson grass can be kept short enough to be in a weak condition, comparatively few rootstocks that penetrate deep into the ground will be formed. An oat or a wheat crop serves this purpose pretty well. When the Johnson grass is in this weakened condition, plowing in July or early August will further weaken the plants and will kill many of them. If the ground then is given clean cultivation until fall, nearly all the grass that is not killed by the cultivation will freeze out during the winter. In case a good deal of the grass shows up after this midsummer plowing it may be advisable to do late fall plowing in order further to expose the roots to freezing."

It will be necessary to vary the treatment outlined depending upon the different farm conditions but if the habits of the plant are kept in mind and approximately this treatment is contest B. Q. Shields received first followed for two years in succession nonors, Miss Pearl Dakin second and the hoe used on occasional extremely persistent spots, almost any field in Kansas can be completely cleared of Johnson grass.

ROOTSTOCKS LIVE ONE WINTER

In loose, deep plowed, well cultivated, rich soil, the rootstocks sometimes go as deep as four feet. In more compact, shallow plowed land the roots remain nearer the surface. The large underground rootstocks which are so characteristic of Johnson grass live over but one winter. New roots must be formed each summer to live over the following winter. Nearly all the first rootstocks to be formed in the spring are those growing comparatively near the surface of the ground. These spread out and send up shoots forming new plants. By midsummer, however, the rootstocks whose habit is to penetrate deep into the ground begin to grow.

Throughout the southern states Johnson grass is regarded as a serious pest. Practically every loan company operating in the south discriminates against land infested with it.

The man with friends-strong friends, true friends and loyal friends -who have confidence in his integrity and ability to do things, has great power. When he leads they will follow him, and all working together unitedly bring victory. - Danville (Ill.)

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H. J. WATERS, PRESIDENT..... Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor ADA RICE, '95, M. S. '12..... Alumni Editor

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Newspapers and other publications are invited to use the contents of the paper freely

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SATURDAY, JUNE 10, 1916

A group of Sedgwick county citizens signed a resolution urging that ability to swim be made a qualification of the coroner. This ought to help stop the Kansas drouth stories that still float around among some eastern newspapers.

The Hutchinson girls aren't bashful, if the boys are. Some friends of a young man there put an advertisement in a newspaper, "Wanted, young lady friend by a bashful young man," and 26 young women called up the same evening the advertisement was published.

English is to be a required subject in the national colleges of Paraguay, which seems to indicate a favorable attitude on the part of South Americans toward English speaking nations. The United States has an unrivaled opportunity for commercial expansion under such conditions.

PRAISED FOR SERVICE

The American college is being more and more measured in terms of its service to the state. This service may be rendered through the students, or, better, both through the students and through special work outside the walls might be; we can easily agree with of the institution.

It is the service to the state given by the Kansas State Agricultural college mended. He saw what the institution good as they should be and could be. but studying the best methods of drivis doing toward improving the agricultural practice, the rural community point-though cases in point are unlife, and the individual homes of Kansas.

There is no higher mission to be of service to society and to the individuals comprising society. It is only within the last few years that the ministry of service has been recognized as the mainspring of every calling, but the colleges of the nation speedily caught the spirit. Not only are they embodying it in their work, but they are sending out young men and women who embody it in their got politeness." lives. Through special service, moreover, colleges are touching with it whole communities and states.

BEING GOOD—BEING CLEVER

Charles Alexander Richards, president of Union college, is one of those who see a necessary antithesis between goodness and cleverness. In talking to the graduating class of Vassar he quoted with apparent approval the old time adage, "Be good, sweet maid, and let who will be clever," but asserted that it had been replaced by the proverb, "Be clever and let who will be good."

To be perfectly respectable, this educator went on to say, was a great handicap, particularly for a woman lieve I left my tobacco pouch on the who aspired to be among the liberators of her sex or the leaders of ad-

vanced social movements. Doctor Richards' theory is evidently that goodness and respectability are identical, which is a very doubtful theory. It assumes that righteousness has to do with the conventions rather than the realities of life. Nobody doubted the goodness of Elijah, but Elijah was not respectable, according to the social standards of his time. King Ahab regarded him as the one 'that troubleth Israel." St. John the Baptist, good but not respectable, had an even more tragic experience with Herod. On the other hand, the bank cashier who is steadily steeling his bank's money, has ample respect in his community until he is caught, indicted, and sentenced to the penitentiary. The employer who is not paying a living wage and who is responsible morally for the consequent ruin of the young women in his employ, is oftener than not respectable in the judgment of his city.

It is not a modern condition that makes it a handicap to be perfectly respectable if one is to accomplish anything for the good of society. It always has been a handicap. Nearly 2,000 years ago it was said, "Beware when all men speak well of you," and that is the essence of respectability. It is probably true that today there are more persons than formerly who are clever and who are willing to be positively, not negatively, good, even at the risk of not being respectable. It is by people of this sort that forward steps in the world have been taken and future steps will be taken. It would be a fine thing if goodness and respectability were identical, but, when they are not and seldom have been, right thinking people will take goodness and will not be misled, moreover, by any mid-Victorian theory that goodness and cleverness are at opposite poles.

BAD MANNERS

Old people say manners are not as good as they were; that the young people of today do not behave themselves so well as young people did when they were young.

That may be; but old people are apt to be mistaken about such things. They are apt to say the climate is changing, but it isn't; memory fools them. Maybe it fools them about the behavior of the young. Boys are boys, and boys were boys when grandfather was one of them-and girls were girls.

But manners aren't as good as they grandmother and grandfather about that. Nothing is to be gained by debating with them over the question that Dr. James Wilson, farmer, edu- whether manners are worse or better cator, and statesman of wide training than they used to be; let's just let it and experience, particularly com- go at this: that manners are not so on the sea coast or in the mountains,

happily plenty.

A handsomely dressed woman entered a crowded street car. Every performed by any institution than that seat was filled, and after looking around the car she took hold of a strap and prepared to stand it out.

A rough looking old fellow with a battered hat and exceedingly plain clothes rose to his feet.

"Miss, take my seat," he said. "I don't look as well as these 'ere men," nodding toward several well dressed young men sitting near by, "but I've

It was a deserved rebuke to the men who remained sitting while a woman stood. In this respect, manners certainly are worse than they were. Not so many men nowadays give their seats to a woman; in some cities they seem never to do it.

The well dressed men colored and pretended to be busy looking into the evening papers or out of the window. But that, unfortunately, is not the

The young woman sat down in the seat the laborer had vacated, but uttered no word of thanks or apprecia-

end of the story.

"Miss," the old fellow then said with a smile, "pardon me, but I beseat. Will you please get up?"

No sooner was the seat vacant than

the old fellow deliberately sat down again.

"I believe I'll keep sittin' here, miss," he explained. "I've got a little more politeness than these 'ere men, but I have found out that I ain't got nigh so much common sense."

And there he sat; while the well dressed miss flushed in her turn, and the well dressed men strove with indifferent success to conceal their glee.

If anybody else needs the cuttingtwo-ways lesson of this story, he-or she—is welcome to it.—Duluth (Minn.)

HEROES OF SCIENCE

If General Gorgas has not yet convinced us all that the tropics will be the was called to take her father's place

The artillery company had exercise in firing on Tuesday at the fifth hour.

Mr. Norton of Clay county visited the college yesterday in search of a place for his children next year.

E. M. Paddleford, '89, writes from Stockdale, of some prospect of engaging in institute work this summer.

H. W. Jones, '88, writes from Lyons, Kan., where he is resting and collecting specimens in natural his-

Professor Hood's time is fully occupied in the preparation of plans and specifications for the summer's improvements in buildings and sewers.

Miss Ada Rice, second year, who

The Country Newspaper

William Allen White in Harper's Magazine

life. And all these touches of Nature make us wondrous

kind. It is the country newspapers, bringing together

daily the threads of the town's life, weaving them into

something rich and strange, directing the loom, and giving

the cloth its color by mixing the lives of all the people in

its color pot-it is this country newspaper that reveals us

to ourselves, that keeps our country hearts quick and our

the wholesale house the news of their wedding is good for

a 40-line wedding notice, and the 40 lines in the country

paper give them self-respect. When in due course we know

that their baby is a 12-pounder, named Grover or Theodore

or Woodrow, we have that neighborly feeling that breeds

the real democracy. When we read of death in that home

we can mourn with them that mourn. When we see them

moving upward in the world, into a firm and out toward

the country club neighborhood, we rejoice with them that

rejoice. Therefore, men and brethren, when you are riding

through this vale of tears upon the California Limited, and

chance upon the country paper with its meager telegraph

service of 3,000 or 4,000 words—or, at best, 15,000 or 20,000;

when you see its array of countryside items; its intermin-

able local stories; its tiresome editorials on the water

works, the schools, the street railroads, the crops and the

city printing, don't throw down the contemptible little rag

with the verdict that there is nothing in it. But know this,

and know it well: if you could take the clay from your eyes

and read the little paper as it is written, you would find all

of God's beautiful, sorrowing, struggling, aspiring world

in it, and what you saw would make you touch the little

When the girl at the glove counter marries the boy in

country minds open and our country faith strong.

UR papers, our little country papers, seem drab and

miserably provincial to strangers; yet we who read

them read in their lines the sweet, intimate story of

TO THE STUDENT OF JOURNALISM James C. McNally in the Editor and Publisher

His native knack made Horace Greeley great;

He scaled the heights in spite of chances few;

With skill and schooling both, easy for you

To reach the goal he gained with limping gait! Your story rich the reading hosts

await-Something beyond his lesser light to

do-And rote and rule your shining path may hew

High up the ramparts of the Fourth

Faults of the head he had, but Greeley's heart Was Freedom's bulwark in your

granddad's day; Remember, as you strive for dazzling

His love of Right, his hate of Wrong

alway. His scorn of Greed, his bold and bit-

ing pen

When Justice was the butt of moneyed

SUNFLOWERS

People who have been very deliberate about getting married have another guess coming.

The Big Boob movement seems to have crowded the Big Brother movement off the platform.

Some people who are so proud of their socks should remember that stripes are also popular in penitentiaries.

A turtle dove looks to have about as much sense as a 16-year-old girl who knows that people think she is beautiful.

The campaign is on now, and everyone should feel free to say whatever he pleases to say about any member of the opposition.

The great trouble with the more daylight plan is that we are going to have to turn down in the evening what we turn up in the morning.

The more daylight movement will probably not reach its crest until July or August. It is still a little cool for summer frocks and Palm Beaches.

The K. C. Star says that in England 'everybody is practicing the most rigid comedy." That's just what economy turns out to be in many a family.

Miss Cora Apple, the adolescent highbrow from Sassafras Mound, has recently published a delightful monograph on "How to Make Your Grandmother Behave at a Fancy Dress

Efficiency is not a product of the twentieth century. There was a writer in the eighteenth century by the name of Addison, first name Joseph, who had something to say on the subject. He wrote as follows, although strangely he called it sincerity instead of efficiency:

Sincerity is the most compendious wisdom and an excellent instrument for the speedy dispatch of business; it creates confidence in those we have to deal with, saves the labor of many inquiries, and brings things to an issue in a few words; it is like traveling in a plain beaten road which commonly brings a man sooner to his journey's end than byways.

Wouldn't you class Addison as an efficiency expert?-Ohio State Lantern.

ROCKY FORD MELONS

Muskmelons of the Rocky Ford type, grown in localities other than Rocky Ford, Col., may be labeled "Rocky Ford," provided the name of the state of a chair in Clemson Agricultural or territory where the melons are procollege, Pendleton, S. C. Of course duced is stated on the principal label, he will not leave the work so well be- according to a recent decision of the gun here but little over a year ago. In United States bureau of chemistry. his letter of declension, however, Pro- This decision was reached for the reafessor Georgeson recommends our Mr. son that the term "Rocky Ford," as Cottrell for the position of professor applied to muskmelons, has come to of agriculture in the new college. It mean a particular type of muskmelon is needless to add that the recommen-grown in various localities of the United States.

earthly paradise of the future he is as teacher at Clifton, has returned to doing his best to make them healthy complete a part of the term's studies and comfortable. On the first of June he expects to head a party of physicians who will spend the summer not A newspaper story brings a case in ing out yellow fever, and will visit all the points in South Africa that are likely to give them information on this

paper with reverent hands.

point. As these men are preparing for a campaign of humanity, a campaign which must necessarily subject them to many inconveniences and may involve fearful risks comes the news of Dr. C. K. Edmunds, now in Asia, on a magnetic survey for the Carnegie institution. Robbers attacked his party, one man was killed, and two badly wounded, one of the two being the cook. Picnickers may not see the force of the latter statement, but let one think a moment. If the cook at a seashore cottage is disabled, the excursionists find another cook, or discover a restaurant, or buy some clams, or take turns at preparing the meals. Just suppose that in a remote part of Asia a trustworthy cook dies, and an explorer must run his chances, perhaps nothing in the way of food at hand. Possibly the native who sells meat or grain may have poisoned it. Now and then reports, however brief, give one an inkling of the heroism of the men who go forth to win the gems of science or to die in the search .-Camden (N. J.) Post-Telegram.

A QUARTER CENTURY AGO

Items from The Industrialist of June 6, 1891 Fifty-two fourth-years wrote their last examination papers yesterday.

W. A. Corey, '84, is reëlected for another year's service in the schools of Salt Lake City, Utah. He writes that the schools have gained the good Ball." will of the people.

Of the 52 members of the senior class, 22 are young women and 30 young men. Twenty-two of these when at home have their post-office address at Manhattan, and none of them claim a residence outside of the state.

The Symposium company received 125 of their books from the printer on Thursday and another 125 on Friday. They expect to receive the balance of the 750 today. The books are being distributed to subscribers as rapidly as possible.

The usual restriction as to age will necessarily be enforced at commencement exercises this year. Indeed the room is too scant for even those who must have seats. Children under 12 years of age must therefore be excluded as usual from all public exercises. except when special arrangements have been made for the brothers and sisters of graduates on commencement

Professor Georgeson has the offer dation is worthily bestowed.

S. R. Vincent, '94, of Sterling, will be a commencement visitor.

Horace G. Pope, '94, of Kansas City, was in Manhattan recently on legal business.

Miss Maud Estes, '10, has been reelected teacher of domestic science at Lincoln.

R. E. Alexander, '12, will teach science in the Weiser (Id.) high school

Miss Carrie Gates, '10, has been reelected teacher of domestic science in Rupert, Ida.

P. H. Ross, '02, county agent of Leavenworth county, will be here for commencement.

Roy Gwin, '14, of Morrowville, Kan., is expected to spend commencement week at the college.

ATTENTION, ALUMNI!

1. Annual business meeting of the association at 2 o'clock on Wednesday, June 14, in the old chapel.

2. Commencement dinner at noon on Thursday, June 15. Plans are for 600 guests. Reservations should be made before Tuesday night. Some space will be reserved for late comers among out-of-town alumni and friends.

3. Reception to visiting alumni, faculty, and friends at 8 o'clock Thursday evening, June

Miss Louberta Smith, '10, is expecting to be present at the commencement exercises of the college.

Miss Mattie Kirk, '10, attended the school of religious pedagogy at Hartford, Conn., the past year.

Mrs. Maud (Failyer) Kinzer, '03, and son, of Kansas City, Mo., will be here for the exercises of commencement week.

Henley Haymaker, '15, who has been taking graduate work in the University of Wisconsin, is visiting at the Sigma Nu house.

Charles Willard, '08, has sold his farm in Virginia and is now visiting relatives in the state. He will be here for commencement.

Mrs. Flora (Day) Barnett, '95, and daughter, Dahy, of Pullman, Wash., are here for a visit with friends until after commencement.

Martin Souders, '14, was graduated from the Springfield Training school this spring and will visit with friends in Manhattan during commencement exercises.

Miss Lois Failyer, '07, will be here for commencement. After a month's vacation she will return to her position as dietitian in the Cambridge hospital, at Cambridge, Mass.

Miss Effie Carp, '15, came to Manhattan from Spearville, where she taught last year. She will teach there again next year. From here Miss Carp went to North Yakima, Wash., where she will spend the summer.

Mrs. Jennie (Smith) Strong, '94, and Mrs. G. C. Wheeler, '95, were the guests of friends in Manhattan from Friday until Sunday. They came to attend the funeral of their mother, Mrs. Emma Smith. Mrs. Strong and family are just moving from Sanford, Fla., to their farm near Brookville in that state.

MARRIAGES

SMITH-ACTON

Miss Nora Smith of Clyde and Mr. W. S. Acton, '14, were married re-North Dakota, where Mr. Acton is managing a large ranch.

BROWN-NEERMAN

Claude S. Neerman, '14, were married are cordially invited to attend.

June 1 at the home of the bride in Manhattan. The ceremony was performed by the Rev. J. B. McClelland of the First Methodist church. After an extended trip in the east they will be at home in Tulsa, Okla.

DAVIS-NABOURS

Miss Mary Turner Davis and Dr. Robert Kirkland Nabours were married in Manhattan Saturday evening at the home of the officiating clergyman, the Rev. A. E. Holt, pastor of the Congregational church. They left at once for a tour of central Asia, from which they will return in four months to make their home in Manhattan.

Doctor Nabours is head of the de partment of zoology in the college and is well known as a scientist. Mrs. Nabours is a graduate of Ohio State university and was an instructor in domestic science in the college.

A double wedding of unusual interest to college friends will occur on June 18. Miss Emma Kammeyer, '12, and Mr. Ray Hull, and Miss Wilma Kammeyer and Mr. George Eldon Thompson, '11, are the brides and bridegrooms to be. Ray Hull will be remembered as an old student, the brother of four graduates of our college. He holds degrees from Illinois and Harvard universities. Mr. and Mrs. Hull will be at home at Santa Barbara, Cal., where he is a landscape artist. Mr. Thompson is in the extension division of the college and he and Mrs. Thompson will after September 1 occupy the home they are building on West Leavenworth street.

DEATHS

MRS. EMMA SMITH

Mrs. Emma Smith, a resident of Manhattan and a former student of Bluemont Central college, died at the home of her daughter, Mrs. G. C. Wheeler, '95, in Topeka May 31. Burial was in Sunset cemetery, Manhattan.

BIRTHS

Born, to Mr. Wallace Dimack, and Ruth (Mudge) Dimack, '01, on May 13, a son. Their home is at Ames, Ia.

Born, to Mr. W. O. Peterson, '97, and Mrs. Alice (Merril) Peterson, on May 30, a son. They are living in Olathe.

FOR DOCTOR WATERS

The Kansas State Agricultural college alumni and former students of Sabetha with a large number of people interested in the college, held a reception for President H. J. Waters after his commencement address at the high its greater cost to him. This better school May 23. There were 50 present. care will have innumerable salutary Punch and wafers were prepared and effects. Less horse power will be reserved by a group of domestic science quired to operate the machinery--a girls from the high school.

Alumni and former students present were as follows: Dr. B. W. Conrad, '95, a very successful veterinarian at Sabetha; Miss Effie Steele, '09, of Minneapolis, who was visiting in Sabetha: Mr. Roy Masheter, '10, a successful farmer and live stock breeder near Sabetha; Mr. Roy Witmer, '13, an instructor in the high school at Sabetha; Mr. Harlan Deaver, '10, a farmer and grain grower near Sabetha; Mr. Eldon Hollister, an up-to-date farmer near Sabetha; Miss Birdie Masheter, housekeeper at Sabetha; Miss Alice Masheter, an assistant in a large department store in Sabetha; Mr. Ralph McNergney, who has been farming near Sa-

MANHATTAN ALUMNI PICNIC

The Manhattan Alumni association of the college held its annual picnic on the college grounds on the evening of Memorial day. There were 200 present, 100 of whom were children. An the performances on the campus, but excellent cafeteria supper was served. At the business session, E. A. Wright, '06, was elected president; Miss Ada Rice, '95, vice-president; Mrs. Harry cently in Concordia. They are now in Smethurst, secretary; and Roy A. Seaton, '04, treasurer.

The local association will give a reception to the visiting alumni on the evening of commencement day at 8 tion. It would have appealed to one Miss Eva Bess Brown, '15, and Mr. o'clock in Nichols gymnasium. All of Shakespeare's own audiences. The

BUY IMPLEMENTS NOW

PRICES OF FARM MACHINERY WILL LIKELY GO HIGHER

Steel Makers Have Thousands of Unfilled Orders at Present, and Many Structures Must Be Replaced After Close of War

Buy farm implements now and avoid probable price increases, is the advice of F. A. Wirt, instructor in farm machinery in the Kansas State Agricultural college.

"Even if the war closes in the near future," says Mr. Wirt, "the price of steel is expected to remain extremely high for several years and the prices on implements may go even higher than those prevailing at the present

"Before the war the steel mills were by no means working to their capacity, and the implement companies had their orders in for steel and other materials far in advance of their needs. After the war began, however, the belligerents demanded the entire output of the American mills, so that the price began to advance rapidly.

ANOTHER INCREASE COMING?

"Some steel parts increased in price several hundred per cent. Today there is hardly a piece that goes into a plow that has not advanced more than 20 per cent. It is rumored that another increase in price will go into effect soon-in fact, some of the companies have already raised their prices an additional 10 per cent. There is no reason to believe that they will be more readily able to obtain moderate priced steel in the future than they have been in the recent past."

It must be borne in mind that the steel makers have hundreds of thousands of tons listed on unfilled orders, points out Mr.-Wirt. In addition to the present tremendous demands made by the warring nations upon the steel output of the United States, it must be remembered that the ship building industry has shown a remarkable revival, and that a vast number of buildings, bridges, and other structures will have to be replaced after the war.

FARMERS PARTLY RECOMPENSED

"The farmer, however," says Mr. Wirt, "should reconcile himself to the high price of implements, bearing in mind always that the prices of his own products have risen to a good figure on account of the war, and that he is partly recompensed.

"Another gloom-mitigating feature of the outlook lies in the probability that the farmer will be led to take better care of his machinery because of rusty, gummed-up machine makes hard pulling. Likewise there will be less waste effort on the part of the operator. Farming operations will be done better, resulting in better crops. This feature alone will in a single season more than offset the increased cost of the machinery.

"The saving of the farmer's time is an important consideration-too often he has to waste a half day in pottering over a piece of machinery that is prematurely aged from lack of care or in going to town for repairs."

COBURN PLAYERS MEET WITH APPRECIATION OF AUDIENCES

Company Presents "The Rivals" and "The Tempest" Before College Crowd

The Coburn players presented "The Rivals" and "The Tempest" before appreciative audiences in the college auditorium Wednesday afternoon and evening. It had been intended to stage weather conditions interfered.

Both plays were interpreted effectively and appropriately. A thorough eighteenth century tone was evident in the presentation of "The Rivals."

"The Tempest," rarely given nowadays, was presented with fidelity to the most trustworthy Elizabethan tradiabsence of spectacular scenery proved feeding methods.

an advantage, as it so often does, in PICK OUT LAYING HENS that the attention of the audience was not diverted from the play itself while the imagination of the hearers was exercised toward building a subjective structure of fancy and romance.

SONNET BY ZIMMERMAN WINS VERSE CONTEST

Same Writer Takes Second Place Also Miss Velma Carson Third-Competition Brings 60 Entries

Students of the Kansas State Agricultural college are versatile, there's no getting around it. They're there with the goods not only in agriculture, home economics, engineering, journalism, and a lot of other studies, but even in poetry.

A few weeks ago Don L. Burk, instructor in English, opened a contest in verse writing which brought 60 entries. The poems averaged up well. Both first and second places went to L. A. Zimmerman of Belle Plaine, a junior in agriculture, while third place was given to Miss Velma Carson of Clifton, a freshman in journalism.

The winning poem is a sonnet to Paine, the author of "Home, Sweet Home," and is as follows:

'Mid lonely wilds of Oklahoma's hills There lives a rustic artist all alone. No mighty deeds nor learning's lofty tone

Give voice to what his humble being fills.

But for one window this immortal thing

Would, like encagéd bird, beat useless wings

And die for voice to sing its carolings.

A violin is this one opening. pensive poet 'mid the peaceful

dead! does this instrument a soul set

So do thy strains my heartache voice for me.

O thou who never owned thy sweet ideal

yet couldst such a wholesome longing feel

Hast sung what my full heart could not have said.

COLLEGE MEN TO ATTEND ESTES PARK CONFERENCE

Nine Students from Manhattan to Take Part in Christian Meetings

Delegates to the Rocky Mountain Student conference of the Young Men's Christian association, which will be held at Estes Park, Col., June 9 to 19 left Thursday in a special car.

The object of the conference is to give to college men-under conditions as nearly ideal as may be found-an opportunity for a serious consideration of the claims of Christianity, and offer them definite guidance and training in the maximum expression of the Christian purpose in the service of their fellow men, both while in college and in later life.

Those who went to the conference are B. Q. Shields of Lost Springs, Otto Githens of Republic, Willard Welsh of Newton, W. W. Smith of Westphalia, R. H. Parsons of Arkansas City, Stewart Sweet of Denver, Col., Fred Robb of Scott City, Ivan Herriot of Garden City, and Leon Abele of Holton.

LEG WEAKNESS IN CHICKS IS LIKE RICKETS IN CHILDREN

Is Caused by Excessive Protein or Too Much Heat

Leg weakness in chickens is caused by feeding the young chicks too much protein or by too much heat in the brooder, according to W. A. Lippincott, professor of poultry husbandry in the Kansas State Agricultural college. It is somewhat similar to rickets in children.

In case the brooder is overheated, reduce the temperature but not to a degree that will make the chicks uncomfortable. In case the difficulty is caused through excess of protein, increase the ash by feeding oyster shells. Leg weakness is generally overcome when conditions are changed by proper

HIGH PRODUCERS MAY BE SELECTED BY EXTERNAL APPEARANCE

In Yellow Skinned Breeds Paleness of Shank Is Reliable Indication at End of First Year, Says Professor Lippincott

It is not only possible but desirable to pick out the high producing hens in the flock by means of external characteristics, according to W. A. Lippincott, professor of poultry husbandry in the Kansas State Agricultural

"Hens that molt late are high producers," says Professor Lippincott, "because they have a longer period in which to lay. Late molting is the accompaniment of late laying, but the mere fact of late molting does not make high producers. The hens that molt late begin laying as early as the early molters, because they molt much more rapidly and lose less time.

"In the yellow skinned breeds the paleness of shank is a very reliable indication in the fall at the end of the first year. The high producers lay the color out of their shanks, and so any bird with yellow shanks after a year of laying has been a poor producer for that year.

EXAMINE COMBS IN AUTUMN

"Those birds with soft and pliable combs about October 1, are in general better producers than those with hard and dried up combs. As a bird molts the comb tends to shrink and become hard, but birds in good condition and laying have pliable combs.

"With the white leghorn pullets which have yellow pigment in the ear lobe at the start of the season, a white ear lobe will be an indication of high production. These birds with yellow pigment in the ear lobe will lay out this color until the lobes are white.

SMOOTH SKIN MEANS PRODUCTION

"The smoothness, pliability, and oiliness of the skin are indications of egg production. A laying bird has a softer, smoother feeling than the nonlaying bird.

"Due to the yolks developing in the ovary and the increase in size of the oviduct, the abdomen swells out in preparation for the laying season. When a bird gets ready to stop laying the abdomen shrinks. This fact is valuable in telling what the bird may do for the next two or three weeks, or by knowing whether the bird is laying at a certain time of the year.

"The practical application of these facts is to discard at the end of a laying year all pullets which have yellow shanks, died up combs, and shrunken abdomens."

MARKET SURPLUS COCKERELS EARLY BEFORE PRICES DROP

Young Males May Also Be Caponized and Sold Later at Profit

Surplus cockerels should be marketed as soon as possible, advises R. M. Sherwood, poultry specialist, division of extension, Kansas State Agricultural college.

"All young male chickens that are not intended for breeding purposes should be either sold as broilers or caponized," says Mr. Sherwood. "The thing to keep in mind is that the longer a cockerel is held after he has reached the broiler stage the less is his actual value as a market product.

"Only in special cases should the cockerels of the Leghorn breed be caponized. Breeds of the heavier types such as Plymouth rocks or Rhode Island reds can be caponized with

"If the cockerels are not marketed at the proper time money will be lost, unless they are so selected as to bring more as breeding stock. On the other hand cockerels of only market value should be disposed of as soon as there is a market for them. Two pound broilers that bring 17 cents a pound in July are worth more than the same cockerels would be two months later at 8 cents a pound, at which time they will be classed as stags. Besides the actual loss in money, two months' feed and work is also lost."

YOU GET BETTER MILK

QUALITY OF KANSAS PRODUCT IS SHOWN TO BE IMPROVING

Ice Cream Is Also Getting Better, Declar College Food Experts-Laboratory Report for Year Tells of Analysis of 704 Samples

Kansas milk and ice cream are improving, according to the report of the Kansas State Agricultural college food laboratory, just presented to the state board of health by Dr. J. T. Willard, analyst, and C. A. A. Utt, associate analyst. The percentage of adulterants in the milk and ice cream analyzed during the year that ended June 1 was exceedingly small as compared with previous reports.

In all 704 samples of various products were analyzed. A number of cans of sardines and of lima beans were examined for tin content and general condition. Many of the sardines showed a noticeable tin content but their condition was somewhat better than in previous years.

SACCHARIN POP FROM MISSOURI

A great many samples of soda pop were found to contain saccharin. These came from Missouri firms doing business in Kansas. An investigation is now under way on canned beans with reference to foreign materialsmolds, bacteria, blight, anthracnose, and other forms of decomposition.

Samples of many products analyzed were found all right. Among these were condensed milk, examined for tin content as well as for general analytical data, and sausage, examined for preservatives and starch content.

SEND VINEGAR FOR TESTS

An investigation of diabetic foods with respect to the new standard showed that most of them would pass even though the labels were placed under the old standard. One line, however, was found to present many false and misleading claims.

Fifty-two samples of vinegar were examined. These were sent in by individuals for an acidity test. The law requires 4 per cent of acetic acid in vinegar.

PLAN DRAWS COMMENDATION

Several lines of investigation are under way. In the year a method was published for the determination of fat in ice cream by the Babcock method. Upon this publication, considerable favorable comment has been made.

A summary of the samples analyzed in the year follows: cream, 168, ice cream, 83; milk, 254; butter, 16; evaporated milk, 9; white flour, 2; graham flour, 4; pancake flour, 1; gluten, diabetic, and dietetic foods, 25; noodles, spaghetti, and macaroni, 4; rice, 1; bread, 9; wheat, 1; lima beans, 4; sardines and fish, 7; pork and beans, 4; peas and corn, 2; soda pop, 34; cider, 5; nuts, 3; meats and meat products, 10; vinegar, 52; miscellaneous, 6.

BOOK BY SEATON WINS HIGHEST COMMENDATION

Work on Concrete Construction for Rural Communities Is Praised as Practical and Scientific

Commended by experts as one of the most thoroughly practical yet scientific works recently published in the engineering field, "Concrete Construction for Rural Communities," by R. A. Seaton, professor of applied mechanics in the college, has just been issued as the third book in the McGraw-Hill agricultural engineering series.

The work deals particularly with the use of concrete on the farm, and is the first important treatment of the subject. It discusses in detail the fundamental principles governing the use of concrete, in language easily understood by those who have no special knowledge of the subject. After a thorough discussion of the necessary properties of the materials used in concrete, it considers the questions of the proportions and quantities of materials required, the construction of forms and the mixing and handling of the concrete. Full directions are given, so that those who have had no experience with concrete can proceed works on that subject and is one of with confidence.

Two chapters are devoted to a dis- institutions are using it as a textbook. warns W. A. Lippincott, professor of ant profits to the breeders."

cussion of the principles of reinforced concrete. Rules are given for determining the strength of simple beams and columns, and for the design of cylindrical structures subjected to internal pressure, such as tanks and silcs.

The methods used in finishing concrete surfaces, in the application of stucco, and in waterproofing and coloring concrete are considered in de-

Special applications of concrete for which full directions are given, with dimensions, amount of reinforcing and drawings where necessary, are concrete building blocks, fence posts, sidewalks, floors and roads, tanks, cisterns and silos, and culverts and small highway bridges up to 20-foot

Prof. K. J. T. Ekblaw of the University of Illinois, himself an author of several texts on agricultural engineering subjects, says of the book, "The features which I consider especially prominent are the care evident in its preparation and make up, and the method appreciative of agricultural conditions. Professor Seaton undoubtedly has produced something very good and is to be congratulated.'

E. B. McCormick, former dean of engineering in the agricultural college, now with the United States office of public roads and rural engineering, speaks likewise in high terms of the

The book should be valuable to those interested in concrete construction in rural communities, and especially to those who desire to do some of the concrete work themselves.

KANSAS FARMER NEEDS RURAL CREDIT SYSTEM

He Is the Primary Producer of Community Necessities and Should Be Economic Leader

That a system of rural credit is sorely needed in Kansas, is the opinion of Theodore Macklin, instructor in rural economics in the Kansas State Agricultural college.

"If the farmers of Kansas are to become land owning farmers there must be a credit system which will make it possible to obtain money for long periods of time and at a low rate of interest to use in carrying on farm operations," says Mr. Macklin.

"The farmer should be the economic leader of the country since he is the primary producer of a large portion of the necessities of every Kansas community. Instead of understanding the markets, however, the farmer now considers himself at the mercy of the middlemen. Often he needs suitable credit to enable him to provide storage facilities for holding his grain for better prices."

The farmer is in this condition because farming is comparatively poorly organized and there is less cooperation among farmers than among the men of other occupations, points out Mr. Macklin.

The interest paid by the Kansas farmer is anywhere from 7 to 10 per cent. He has to contend with Hessian fly, San José scale, and other insects, says Mr. Macklin, but the bug that devours his crop by day and night is the interest bug. The rate is too high to afford safety in investing in the needed improvements. What the Kansas farmer wants is not special privileges but an opportunity to use the asset of his land as easily and readily as the merchant uses his stock of goods.

LIPPINCOTT WILL CARRY ON ADVANCED GENETIC STUDIES

Head of Poultry Husbandry Department to Study in University of Wisconsin

W. A. Lippincott, professor of poultry husbandry, has received leave of absence for a year to take graduate work in the University of Wisconsin. Professor Lippincott will study genetics with special reference to poultry. He will work under Doctors Cole and Guver.

Professor Lippincott has just finished revising his book on poultry production. It is one of the best the most widely used. Thirty-five state

MORE INSECTS TO KILL poultry husbandry in the Kansas

GEORGE A. DEAN TELLS OF METHODS OF EFFECTIVE CONTROL

Spray Destroys Tomato Worm-Use Pre ventive Plans Against Flat-Headed Apple Tree Borer-Water Under Pressure for Red Spider

The proper method of tomato worm control in small patches is hand picking and in larger gardens or fields use of a lead arsenate spray or Paris green, according to George A. Dean, professor of entomology in the Kansas State Agricultural college.

"When spraying with arsenate of lead use 2½ pounds of dry material to 50 gallons of water," advises Professor Dean. "One pound of fresh stone lime should be used with every pound of paris green to prevent burning of the foliage. The paris green spray should be used with care.

"The tomato worm is a large fleshy green caterpillar nearly as thick as one's little finger, and about three and a half inches long when extended. The hawk moth, which is the adult of this worm, has a wing expanse of about four inches."

IT'S TIME FOR MOTHS

The dark mahogany brown pupæ are frequently turned out of the ground by the spade or the plow in the early spring. They have a process projecting from the head, resembling the handle of a pitcher. The pupæ measure about two inches in length. When unearthed they should be destroyed.

The moths appear from May to June, according to locality and season. The eggs are deposited usually singly on the under surface of the leaves. They hatch in four to eight days. The larvæ, when full grown, burrow into the soil and transform to pupæ.

The flat-headed apple tree borer is a dangerous enemy of the young apple tree. Nearly all old orchards are infested, says Professor Dean.

AVOID THE OLD ORCHARDS

"Do not set out young trees near old orchards," is his advice. "The flat-headed borer girdles the trees in the cambium layer, cutting off the food supply. These borers may be dug out but preventive measures are a more effective means of control.

"A wash that will prevent the female from laying her eggs on the tree may be made by dissolving in a saturated solution of washing soda enough common laundry soap to make a thick paint. To each two gallons of this add one pint of crude carbolic acid and half a pound of paris green.

"Apply this wash with a whitewash brush or an old broom to the trunk and lower limbs of the young tree. Keep the tree coated with this wash until the last of July."

Water under pressure should be us in combatting the red spider, according to Professor Dean.

SPRAYS ARE DESIRABLE TOO

"To rid shubbery, pines, cedars, and all kinds of flowers and garden plants of the red spider," he says, "no method is more practical than that of washing them off with water, if sufficient pressure is available. The city water or the farm pressure system usually has sufficient force to knock off and kill the spiders. These mites must be washed off as often as they appear.

"A good spray is black leaf 40, a nicotine sulphate solution. This must also be applied with considerable force so as to strike the mite, for unless it does strike the mite it does no good.

"A good substitute for black leaf 40 is a strong soapy spray made by dissolving one pound of common laundry soap in six gallons of soft water. The red spider is a troublesome greenhouse pest. Here it may be killed by hydrocyanic acid gas or tobacco fumi

USE NEWLY LAID EGGS FOR HATCHING PURPOSES

This Is Especially Important in Warm Weather, Says Head of Poultry **Husbandry Department**

Use newly laid eggs for hatching-

State Agricultural college.

"When the fertile egg is laid it has already been incubated for several hours," says Professor Lippincott. 'It continues to incubate until it cools to a temperature of 68 degrees or lower, although the development becomes less rapid as the temperature is reduced.

"When kept at a temperature somewhat below 68 degrees, it remains alive but dormant for a time. On the other hand, when kept at a temperature slightly above 68 degrees, but below normal incubating temperatures, the germ develops slowly but under such unnatural conditions that its vitality is injured. If this condition is of long duration the usual result is a dead germ. If continued for a short time only the egg may hatch, but the chick resulting will not have the vitality it should.

"Eggs should not be kept for hatching any longer than is absolutely necessary, although they may be kept as long as two weeks in a temperature between 55 and 65 degrees if they are turned several times during that period. After two weeks the hatching quality of eggs deteriorates.

"Eggs for hatching should not be washed except if an egg is broken in the hatching nest and the contents are smeared over the other eggs. One must then choose between the evils of leaving the eggs soiled in this manner and washing them.

"Two ounces is considered the standard weight for a market egg. A pullet hatched from a small or poorly shaped egg is likely to lay the same kind in turn. Abnormally shaped eggs are likely to be broken when crowded into the space allowed by the ordinary egg case filler. If they are long and narrow the end is smashed in, and if they are short and round or have a ridge around the middle, they are likely to be crushed from the side.

"There is no known method of detecting the infertile egg without breaking it, or of determining the sex of the chick that may hatch from a given egg."

UNITED EFFORT MAKES IMPROVED LIVE STOCK

Most Popular Breeds Built on Cornerstone of Team Work, Says Edward N. Wentworth

The greatest average improvement in animal breeding has been the result of united effort. This is proved by the conditions in communities in which purebred live stock production has been most successful, asserts E. N. Wentworth, professor of animal breeding in the Kansas State Agricultural college.

"The cornerstone upon which the most popular breeds have grown into prominence is team work. There is scarcely a section of country famed for its live stock that is not a specialized section. The Island of Jersey was made famous by the Jersey breed. Poland China hogs have caused Page county, Iowa, to become a prominent place in the swine world. Tasewell county, Illinois, is now a recognized Percheron horse market. A buyer in visiting these places sees not merely one improved herd, but many.

"Friendly rivalry among the owners of these herds stimulates each breeder to his utmost activity. When one man in the section advertises his herd, all in that community are benefited thereby. Sales follow one another closely, and the buyer usually takes advantage of this by attending all.

"A breeder should select one breed of stock and stand by it. The breed does not matter so much as the method of handling. If one breed is dominant in the community that is the breed to select. Changing breeds and crossing are usually steps backward.

"By coöperation among the breeders in a district, by persistent use of one breed, and by modern methods of feeding and management, the district is filled with stock of one type and character. Such a condition becomes quickly and widely advertised, bringparticularly when the weather is warm, ing buyers of consequence with result-

MAY IRRIGATE GARDENS

KANSAS VEGETABLE GROWERS HAVE CHANCE TO INCREASE RETURNS

Various Methods Are Used, Points Out Professor Ahearn-Trench and Overhead Systems Are Commonly Employed-When to Apply Water

Knowledge of methods of irrigation are of practical value to the Kansas gardener, according to M. F. Ahearn, associate professor of horticulture in the agricultural college.

"Irrigation may be furnished by several methods," says Professor Ahearn. "One of the best of these is the ditch method.

"For large gardens it is customary to open trenches between the rows of vegetables by plowing a shallow furrow and to connect these with a larger or main ditch placed at the end of the garden. This main ditch may be 12 to 15 inches deep and of about the same width. It is a good plan to break the soil at the lower side of the ditch to prevent excessive leaching of the water.

"The method is simple. A dam is thrown across the main ditch and the water turned into one or several of these lateral ditches. As they become filled, the position of the dam is changed. After irrigating by the ditch method it is a good plan to fill in the trenches before the soil bakes.

SUBIRRIGATION FOR SOME SOILS

"Subirrigation has been practiced with more or less success for vegetables. It is carried on by means of perforated pipes sunk below the surface of the ground, fed by the main flow. For shallow rooted crops like lettuce and radishes, this has not been entirely satisfactory but it has caused a decided increase in the yield of some of the deeper rooted vegetables. The kind and the condition of the soil have a great deal to do with the success or failure of irrigating by this method.

"Another and important way of securing moisture for the garden is what is known as overhead system. This system has been used by some market gardeners in Kansas with decided success. Overhead pipes distribute the water evenly, usually in the form of a spray by means of different kinds of nozzles and different degrees of force or pressure.

TWO KINDS ARE POSSIBLE

"Occasionally a system is so arranged that pipes are run along the ground as well as overhead. This makes it possible to furnish the crop with two kinds of irrigation. The general belief is that surface irrigation is apt to damage the plants by sweeping the soil away from the roots and exposing them to the intensity of the

In the home garden, irrigation may be secured by making shallow trenches with the hoe and then permitting the water from the hose to flow into these shallow trenches, points out Professor Ahearn. For a small garden, if the water rates are not too high, this method will be found to be very prac-

In irrigating, a person should not wet the top of the leaves, particularly if the work is being done during the heat of the day.

CULTIVATE AFTER IRRIGATING

The best time to irrigate is early in the morning or late in the afternoon. Starting at 4 or 5 o'clock in the afternoon with a sufficient head of water, one should be able to irrigate several acres before sundown. It never pays to quit work along this line because the 6 o'clock whistle blows.

As soon as possible after irrigating, the soil should be cultivated so as toconserve the moisture. Clay soils have a tendency to crack, and there is a large amount of evaporation from the soil.

It is a good plan to furnish sufficient water while irrigating and to irrigate only when it is absolutely necessary.

The question whether or not it will pay to irrigate will depend on several factors-first, the water supply; second, the labor supply; and third, the soil condition. For several of the long season crops it will prove a greataid to the financial returns of the market gardener.

THE KANSAS INDUSTRIALIST

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Kansas State Agricultural College, Manhattan, Thursday, June 15, 1916

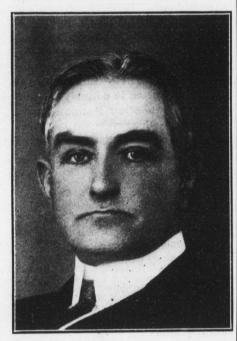
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ADDS 275

PRESIDENT WATERS CONFERS DE-GREES ON RECORD BREAKING CLASS

Dr. P. P. Claxton Delivers Address on "Th Value of Land"-Certificates Are Awarded to 175 on Completion of Short Courses

The largest class ever graduated from the Kansas State Agricultural college received diplomas from the hands of Dr. Henry Jackson Waters, president of the college, this morning. The total number of degrees conferred was 289, about 15 of which were grant-



DR. PHILANDER PRIESTLY CLAXTON

ed to persons already holders of degrees from the institution.

Candidates for agricultural degrees, including doctor of veterinary medicine, were presented by Dean William Haddam; Wayne Lycurgus Willhoite, M. Jardine; candidates for home economics degrees by Dean Mary Pierce VanZile: candidates for engineering degrees by Dean A. A. Potter; and Wood, Cleveland, Ohio. candidates for general science degrees by Dean J. T. Willard.

In addition to the degrees, 175 certificates in home economics, agriculture, creamery work, steam and gas traction engines, and shop work were awarded to young men and women who had completed the short courses.

NOTED EDUCATOR AS SPEAKER

The address of the day was delivered by Dr. Philander Priestly Claxton, United States commissioner of education and one of the best known educators in America. Doctor Claxton delivered a brilliant address on "The Value of Land," a subject to which he has given close study.

Musical selections added much to the attractiveness of the commencement program. Miss May Carley of the music department sang Coleridge-Taylor's "Blood Red Ring" and Spross' "Will o' the Wisp." The college orchestra, under the direction of Prof. R. H. Brown, played Von Blon's "Grand March," Elgar's "Larghetto," Suppe's "Morning, Noon, and Night," and Pryor's "Arms of America."

The Rev. Dr. John M. McClelland, pastor of the First Methodist church, was in charge of the devotions.

The following degrees were conferred:

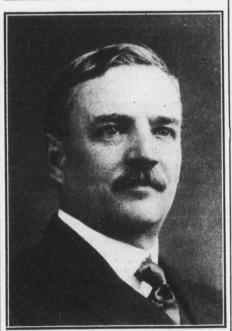
IN AGRICULTURAL DIVISION

Bachelor of Science in Agriculture (Course in Agronomy)-Le Roy Alt, Norborne, Mo.; William Ray Bolen, Le Roy; Ira Nichols Chapman, Manhattan; Kim Ak Ching, Honolulu, Hawaii; William Bayles Coffman, Manhattan; Ralph Cleland Erskine, Edgerton; John Laurence Garlough, Manhattan; Nathan Arthur Gish, Manhattan; Frank Simon Hagy, Wichita: Robert John Hanna, Mankato; Nicholas Tichon Jerebzoff, Manhattan; Reuben Edward Lofinck, Manhattan; Claude Ewing Lovett, Eureka; Charles

TO ALUMNI Gottlieb Lucker, Manhattan; Willard Earl Lyness, Walnut; James Hendrix McAdams, Salina; Albert John Mangelsdorf, Atchison; Edwin Isaac Maris, Nortonville; James Robert Mason, Seneca; Percival Button Potter, Manhattan; Joseph Vincent Quigley, Blaine; Roy Ralph Reppert; Valley Falls; Archie Monroe Richards, Manhattan; Daniel Andrew Robbins, Colony: Rudolph George Rodewald, Yates Center; Edward Russell, McPherson; George McClellan Schick, Plainview Tex.: Ralph Powell Schnacke, Topeka: Edward Loy You Shim, Kahului Hawaii; Guy Cephus Smith, Great Bend; Harlan Randolph Sumner, Manhattan: Francis Marion Wadley, Manhattan; Luther Earle Willoughby,

> Bachelor of Science in Agriculture (Course in Animal Husbandry) - Walter Brown Adair, Osawatomie; Raymond Voiles Adams, Eureka; Alfred Carroll Apitz, Manhattan; Hugh Edwin Baird Formoso; Keatley Graham Baker Manhattan: Orie Walter Beeler, Manhattan; Omar Olin Browning, Linwood; McArthur Baptiste Brush, Newton: Fred Cromer, Manhattan; James William Crumbaker, Onaga; Herbert Horace Frizzell, Cherokee, Okla.: Paul Bernard Gwin, Morrow ville; Preston Orin Hale, Manhattan Louis Samuel Hodgson, Harveyville: Alfred Ernest Lawson, Manhattan; Jason Paul Loomis, Colby; Jay Laurence Lush, Altamont; Lewis Evermont McGinnis, Kansas City. Mo.; Clinton Fisk McIlrath, Kingman; Ralph Vernon O'Neil, Wellsville; Walter John Ott, Greenleaf; Earl Ramsey, Solomon, Ralph Paul Ramsey, Solomon; James Edward Rouse, Manhattan; Richard Jerome Sedivy, Blue Rapids; Sik Hung Taam, Canton, China; Frank Andrew Unruh, Manhattan; Clarence Burton Williams, Bigelow; Lewis Arthur Williams, Manhattan; John Southwell

> Bachelor of Science in Agriculture (Course in Horticulture) - Morgan Thompson Binney, Kansas City, Mo.; William Cecil Calvert, Kansas City,



DR. HENRY JACKSON WATERS

Kan.; Joseph Lyndon Davis, Belleville; Archibald Alexander Glenn, Manhattan; Harry Alexander Gunning; Kannas City, Kan.; Everett Raymond McGalliard, Troy; James Curtis Riney, Pratt; James Homer Sharpe, Council Grove; David Riley Shull, Kansas City, Kan.; Jay Webster Stratton, Kansas City, Kan.; Edmund Francis Wilson, Kansas City.

Bachelor of Science in Agriculture (Course in Dairy Husbandry)—George Rigg Campbell, Fulton; Luzerne Hallock Fairchild, Manhattan; Paul Campbell McGilliard, Manhattan; Thomas Edwin Moore, Manhattan; Chintaman Vishnu Sané, Baroda, India; Rudolph Emil Stuewe, Alma:

(Concluded on Page Three)

HIGH HONORS TO MANY

SENIORS, PROFESSORS, AND ALUMNI GET SCHOLARSHIP RECOGNITION

Phi Kappa Phi Initiates Large Class o Basis of Intellectual Attainments-Dr. William L. Burdick Discusses Educational Ideals

Eighteen members of the class of 1916, 11 members of the faculty, and a large number of prominent alumni were initiated into Phi Kappa Phi, national scholarship society, Wednesday morning.

The members of the senior class who were initiated are the best 7 per cent fessor of irrigation and drainage enin each of the divisions of the college, the election being made purely on the basis of scholarship.

The fraternity chose as its honorary members Dr. Edward T. Fairchild, formerly Kansas state superintendent of public instruction and a regent of the college, now president of the New Hampshire State college, and Dr. Ernest R. Nichols, for 10 years president of the college, and for a number of years previous a member of the faculty.

Faculty members and alumni of the college initiated yesterday were chosen on the basis of intellectual attainment. The alumni were selected from various classes up to and including the class of 1905.

FOR DEMOCRACY OF LEARNING

This society, the only one of its kind in the college, offers the most coveted scholarship honors. The society aims to stand for the unity and democracy of learning, not confining its membership to students receiving degrees from any special course. Its fundamental object is to emphasize scholarship in the thought of college students, to hold fast to the original purpose for which institutions of learning were founded, and to stimulate mental achievement by the prize of membership.

The society was founded about 20 years ago at the University of Maine. and now has approximately 25 chapters. The chapter here was installed last fall with a number of the members of the faculty as charter members.

FOR CONCENTRATION AND COURTESY

The first annual Phi Kappa Phi address of the college was delivered Monday evening by Dr. William L. Burdick of the University of Kansas, who presented effectively the subject, "The Ideals of the Educated Man."

Doctor Burdick laid stress on the high value of scholarly ideals, and urged the necessity of holding fast to the spiritual. He pointed out the necessity of concentration in the midst of the complex conditions of modern life.

The speaker showed the function of true courtesy in all the relations of

"On the wall of New college, Oxford," said Doctor Burdick, "is an old inscription, 'Manners maketh man.' I have often wished that these words might be carved somewhere in every educational institution in America."

HEAD CLASS OF 1916

The members of the class of 1916 admitted to the society are Mrs. Ethel Strother of Manhattan, Elliott Ranney of Manhattan, Miss Lois Witham of Manhattan, Miss Martha Conrad of Manhattan, Miss Cora DeVault of Ocheltree, Miss Louise Price of Winfield, Iowa, Miss Sarah Jane Patton of Hiawatha, Miss Mary Tunstall of Manhattan, Miss Franc Sweet of Manhattan, Miss Mary Polson of Fredonia, James Sidney Hagan of Manhattan, John Prosser Rathbun of Downs, Ralph P. Schnacke of Topeka, James R. Mason of Seneca, John S. Wood of Cleveland, Ohio, Raymond V. Adams of Eureka, George H. Dean of Arkansas City, and Lawrence Garlough of Manhattan.

Lee R. Light of Manhattan, a graduate student, was also initiated.

Faculty members initiated are W. H. Andrews, associate professor of mathematics; H. L. Kent, principal of the school of agriculture and associate professor of education; W. W. Carlson, associate professor of shop practice and superintendent of the shops; Cecil Salmon, associate professor of crops; H. H. King, associate professor of chemistry; I. V. Iles, associate professor of history; R. H. Brown, assistant professor of music; C. O. Swanson, associate professor of chemistry; Dr. C. W. McCampbell, assistant professor of animal husbandry and secretary of the state live stock registry board; H. B. Walker, associate progineering; W. S. Gearhart, professor of highway engineering.

The alumni elected to membership are as follows, the name of each being followed successively by the degrees held by him-with their source if not the Kansas State Agricultural college. his address, and his occupation:

LONG LIST OF ALUMNI

1872-Samuel Wendell Williston, A. B., A. M., M. D., Ph. D., Yale, Chicago, Ill., professor of paleontology, University of Chicago.

1876-Nellie Sawyer Kedzie Jones, A. B., M. S., Auburndale, Wis., for many years professor of domestic economy in the Kansas State Agricultural college and Bradley Polytechnic Institute, and still doing much work in home economics.

1877-George Henry Failyer, B. S. M. S., Manhattan, for many years professor of chemistry, Kansas State Agricultural college; chemist in soil research, United States department of agriculture, 1902-1911; now retired.

1881-Dalinda Mason Cotey, B. S., Oakland, Cal., professor of domestic science, South Dakota Agricultural college, 1887-1890; dean of school of domestic science and art, Utah Agricultural college, 1894-1907; now retired. 1884-Henry Mortimer Cottrell, B. S., M. S., Memphis, Tenn., who has

held numerous important agricultural positions and is now employed by the Commercial club of Memphis as a special agent to develop the agriculture of the region within a radius of 200 miles; Charles Lester Marlatt, B. S., M. S., Washington, D. C., entomologist and acting chief of bureau of entomology, United State department of agriculture.

1885-Frederick John Rogers, B. S., M. S., Stanford university, Cal., sociate professor of physics in Leland Stanford Junior university.

1886-John U. Higinbotham, B. S., with Detroit Lubricator works, Detroit, Mich., author of "Six Weeks in Europe" and several other books on European travel; Edward Octavius Sisson, B. S., A. B., University of Chicago, Ph. D., Harvard, Boise, Ida., commissioner of education for the state of Idaho; Frances Henrietta Willard Calvin, B.S., Washington, D. C., home economics specialist, United States bureau of education.

1887-Edgar A. Allen, B. S., Chilocco, Okla., superintendent of United States School for Indians at Chilocco and of several other schools in district 4; John Brookins Brown, B. S., M. S., Phoenix, Ariz., superintendent of School for Indians at Phoenix and several others in district 14; Mark A. Carleton, B. S., M. S., Washington, D. C., cerealist in charge of cereal investigations, United States department of agriculture.

1888-The Rev. Clement G. Clarke, B. S., A. B., B. D., Yale, Peoria, Ill. pastor First Congregational church; David G. Fairchild, B. S., M. S., Washington, D. C., agricultural explorer, United States department of agriculture; Abby L. Marlatt, B. S., M. S., Madison, Wis., professor of home economics, University of Wisconsin; Ernest Fox Nichols, B. S., M. farmer how to get the best furrow with

(Concluded on Page Four)

GIVES TEST OF VOCATION

DOCTOR BITTING ASKS, CAN YOUR CALLING REVEAL GOD?

Baccalaureate Preacher Points Out Relation Between Religion and Agriculture-Deity Works According to Law in All Relations of Life

Test your life occupations and relations by the question, Can these become the channels through which God may reveal himself or show the moral ideals he wishes us to realize? This was urged upon the members of the class of 1916 by the Rev. William Coleman Bitting, D. D., pastor of the Second Baptist church of St. Louis, Mo., who delivered the baccalaureate sermon Sunday afternoon in the college audi-

"Any business," said Doctor Bitting, "that our moral natures tell us cannot be used by our Father as the means of revealing himself because it is essentially harmful to character, or anti-social in its effects is no occupation for one who wishes to commune with the highest, or to help human society develop to the uttermost.

FARM LIFE IS BEAUTIFUL

"Whatever pursuit puts a veil over the face of our heavenly Father, or makes abnormal relations between his earthly children is to be avoided. But all normal pursuits in life may be avenues through which God comes to us, and the highways along which we can walk with him. Among them all none is more beautiful than the life in communion with mother earth and with God's humbler creatures. It is not without significance that the very beginning of our bible tells us the story of man in communion with the flora and fauna of the field, and that his attitude toward these was to fulfil divine purposes for his life. It is here he learned that

'Earth is crammed with heaven And every common bush afire with God.

"We need this view of life because materialism threatens to enslave us. We are apt to think that the chief end of an occupation is to make a living. The real aim of any business is that we may learn how to live. In every vocation we are to seek first the kingdom of God, to make primary the establishment of the social order in which every man shall live like a child of the heavenly Father, and therefore all shall live together as God's earthly family When this is done then it will be true as a matter of sequence that all other things shall be added unto us."

AGRICULTURE INFLUENCED HEBREWS Speaking on the subject, "Religion and Agriculture," Doctor Bitting traced in an interesting and effective way the influence of agricultural life on the literature, laws, and history of the Hebrews as presented in the old testament. He pointed out likewise the extensive use of agricultural allusions by Jesus in his earthly ministry.

The speaker laid emphasis on the thoughts that revelation comes through life's daily experiences, that God is orderly in his work in all realms of life, and that religion is not a fragment or department of life but a spirit that permeates and suffuses all life.

NORMAL LIFE IS RELIGIOUS

"If it be true," declared Doctor Bitting, "that God reveals himself in and through daily experiences, and that in all realms of life God's working is not whimsical but orderly, then it must be true that all normal life is essentially religious. What is more beautiful than Isaiah's hymn to the plowman, wherein he says, 'His God instructs him aright and teaches him'? Could anything be more exquisite than the picture of Jehovah as an instructor in agriculture, teaching the Palestinian

(Concluded on Page Four)

Published weekly during the college year by the Karas State Agricultural College, Manhattan, Kan.

H. J. WATERS, PRESIDENT..... Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor
ADA RICE, '95, M. S. '12......Alumni Editor

Except for contributions from officers of the college and members of the faculty, the articles in THE KANSAS INDUSTRIALIST are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are invited to use the contents of the paper freely without credit.

The price of The Kansas Industrialist is 75 cents a year, payable in advance. The paper is sent free, however, to alumni, to officers of the state, and to members of the legislature.

Entered at the post-office, Manhattan, Kan., as second-class matter October 27, 1910. Act of July 16, 1894.



THURSDAY, JUNE 15, 1916

An eastern paper has it that Kansans are urging the removal of the capital of the United States to Fort Riley. Kansas people get lots of news about the state from eastern papers that they would never hear otherwise.

By the time the national presidential campaign is well started, the cartoonists will have the main issue doped out as eye glasses vs. whiskers. Many voters are expected to show equal intelligence in deciding how to cast their ballots.

A few weeks ago everybody was wishing the papers would print something besides war news. Now every- inexperienced worker. The writer has body wishes they would stop filling the sheets with political news and would let the people know something about the war.

OLD AND NEW MEET

For the forty-second time in its history, THE KANSAS INDUSTRIALIST welcomes back the "old grads" and bids the newest alumni-those just graduated-Godspeed.

In this period of nearly half a century, THE INDUSTRIALIST has seen the alumni increase from a mere handful-22 persons to be exact-to a throng of more than 3,000 strong men and women, scattered over all the face of the earth. It has seen the college plant grow from a few little buildings in a frontier town to one of the largest, most effective institutions in the great middle west. It has seen the work of the college differentiated broadened, strengthened.

With all the changes, however, the college is still holding fast to the fundamental principles of its early ideals. It still believes in educating the hand as well as the brain. It still trains for specific vocations, as it did in the early days when institutions like it "were but few in the land." It still contains a large amount of data which holds up efficiency in life as one of the great goals of education.

Better still, its younger as well as its older graduates are showing in their lives the influence of the ideals which the college presented to them. Their work is making for greater and greater efficiency in individual and social life everywhere.

It is because of the unity of purpose and endeavor that has characterized the college that material changes in the institution do not seem to the older alumni to affect the spirit of the institution, and they meet with the younger men and women on a common level of devotion.

"MANNERS MAKETH MAN"

"Manners maketh man."

Possibly we should not agree literally with these words, taken from an considers the standard of living of the inscription on the walls of New college, Oxford, and quoted by Dr. William L. Burdick in his address to the cluding tailoring, shoemaking, wood-Phi Kappa Phi society Monday evening. Certainly, however, they empha-spinning and weaving, basketmaking, bile element, for the reasons indicated for weal or woe, for right or wrong. per man.

size an aspect of education that we nowadays are prone to overlook.

It is, of course, not merely the outward forms which the inscription intends to comprise in the term, "manners." The ancient writer aimed to include the spirit which underlies the outward forms and fills them full of spiritual grace and charm. The spirit of genuine courtesy ought certainly to permeate the life of every educated man or woman.

RECENT BOOKS

Seaton, R. A. Concrete Construction for Rural Communities. Demy octavo, pp. 223, illustrations 96. New York: McGraw-Hill Book Company.

This book answers the purpose for which it was intended in a most admirable way. In the preface, the author states that he has endeavored to write a book which will be satisfactory as a text for a brief course in concrete construction for students who have not had the training in mechanics necessary to use successfully the present text books on concrete and reinforced concrete. Another important purpose of the book is to give authoritative information to the vast number of farmers and mechanics who have occasion to use concrete and who would be unable to read intelligently the more technical books that constituted the only source of impartial information heretofore available.

It is true that cement manufacturers have published a large amount of literature calculated to meet the above demands. The users of their product, however, have always been inclined to view manufacturers' statements with more or less suspicion. For this reason, the numerous class for whom the book is intended will find that Professor Seaton's book meets a long felt need, the acuteness of which has increased rapidly during the last few years. The author has treated practically all phases of concrete construction which should be attempted by the carefully examined the text and finds that the information presented by Professor Seaton conforms well to the most advanced practice in concrete construction.

The chapter on the selection of the aggregates and proportioning the materials will be found especially valuable to the class of readers to whom the book is addressed. In full justice to the other portions of the book, however, it can hardly be stated that these chapters will be found of more value than many of the others. The construction of forms and mixing and handling concrete are equally important and the inexperienced user of concrete will perhaps find the information given on these subjects quite as valuable as that on aggregates.

Part III, on reinforced concrete, presents the principles of reinforced concrete briefly and clearly. writer knows from experience that many non-technical users of concrete are placing reinforcement in their structures without the least knowledge of its function. A close reading of this part of the book cannot fail to bring enlightenment. Part V, dealing with typical applications of concrete, will be of great practical value to those who wish to undertake the construction of side-walks, floors, tanks, cisterns, silos, roads, bridges, etc.

L. E. CONRAD.

PEKING'S MODEL PRISON

Ex-president Eliot of Harvard said a year or so ago that the Peking prison was the most interesting thing he saw in his whole trip through China. I think the "Gate of Hope" is more interesting, but I should place this magnificent prison a close second.

Take the workrooms, for instance. In great, high-studded rooms 40 yards square by a measurement I was curious enough to verify, there were groups of 40 or 50 men working at their trade under conditions, if one far east, almost ideal. There were big rooms for 10 or more trades, inworking, ironsmithing, bookbinding,

printing, and several others, not the in the foregoing. Besides, the pruleast of which was market gardening dent investor in a motor car apprecioutdoors. It was strange to hear, out ates that by the elimination of unnecesin far away Peking, in a city through sary parts there is going to be a large the streets of which I had traveled saving in the cost of operation-in the continuously for six weeks without gasoline, tire and repair bills."once meeting a foreign face except in Rider and Driver. the tiny, walled foreign quarter-it was strange to hear that the majority of men who came to prison knew no trade, and that the best way to make them behave themselves like decent citizens when they got out was to teach them a trade. It was all what we are still vainly trying to practice at home.

At the Peking prison they not only teach prisoners a trade, but they for their work.

A QUARTER CENTURY AGO

Items from The Industrialist of June 15, 1891 The drill of the college cadets furnished entertainment for the crowd in the afternoon.

The ladies of the Congregational church furnished a good dinner for the multitude, and carried away \$150

Wisdom

The Book of Ecclesiasticus

YISDOM exalteth her children, and layeth hold of them that seek her. If a man commit himself unto her, he shall inherit her; and his generation shall hold him in possession.

For at the first she will walk with him by crooked ways, and bring fear and dread upon him, and torment him with her discipline, until she may trust his soul and try him with her laws. Then will she return the straight way unto him and comfort him and show him her secrets.

Come unto her as one that ploweth and soweth, and wait for her good fruits; for thou shalt not toil much in labouring about her, but thou shalt eat of her fruits right soon.

She is very unpleasant to the unlearned: he that is without understanding will not remain with her. She will lie upon him as a mighty stone of trial and he will cast her from him ere it be long. For wisdom is according to her name, and she is not manifest to many.

Give ear, my son, receive my advice and put thy feet into her fetters and thy neck into her chain. Bow down thy shoulder and bear her, and be not grieved with her bonds.

For at the last thou shalt find her rest, and that shall be turned to thy joy.

Then shall her fetters be a strong defense for thee, and her chains a robe of glory, for there is a golden ornament upon her, and her bands are purple lace.

Thou shalt put her on as a robe of honor, and shalt put her about thee as a crown of joy.

have an employment bureau which connects a man with a job.

The parole system has been introduced, and the governor has decided to stick to it. Physical drill, an inno- the pulpit during the summer. vation in any class of Chinese society, is held daily, and the sitting up exercise I saw proved that the men enter into it with appreciation and enthusiasm. - Gardner L. Harding in the Cen-

WHAT KIND OF CAR?

"In considering the purchase of an automobile it is a good rule to figure out in advance all the prospective requirements to be placed on the car," used for business purposes, for pleasure, for every day trips around town, for touring, or to meet different needs?

"Then, the man who is about to invest in a car should consider the question of who is to drive it-whether he is going to be the driver, his wife or other member of the family or a chauffeur. By putting these things down on paper and 'striking an average,' as it were, there ought to be no mistake in selecting the car best suited to perform the service which will be required.

"In connection with every purchase, no matter what conditions are to be met, there is another fundamental consideration, and that is simplicity. Its importance cannot be too strongly emphasized, especially if the buyer knows little or nothing about things employ an expert to look after the

sign and construction, easy to undermechanic is in charge.

E. O. Sisson, '86, has yielded to the urgent solicitation of the Baptist church of Mound City, where he has taught the past year, and will supply

The degree of master of science was conferred upon Bertha H. Bacheller, '88, for proficiency in chemistry and household economy, and upon D. G. Fairchild, '88, for proficiency in botany and horticulture.

The Alumni association met Wednesday afternoon and elected officers for the ensuing year as follows: President, E. Ada Little, '86; vice-president, C. A. Campbell, '91; treasurer, Emma says an expert. "Is the car to be Allen, '89; secretary, Madeleine Mil-'91. Lieutenant Todd, '72, was ner, the oldest alumnus present.

The combined invitation and program for class day was a specially engraved design in script. A miniature cut of the main building was also shown, while the class motto, "We Want the Earth," was illustrated by a globe encircled by a shawl strap toward which a number of hands were outstretched.

Fifty-two young men and women appeared on the chapel rostrum Wednesday morning to receive the degree of bachelor of science. The representative system was made necessary this speakers were therefore selected by lot to present the orations of commencement day. They were Misses Conwell, Corlett, Fairchild, and Milmechanical and does not propose to ner, and Messrs. Campbell, Creager, VanBlarcom, and Waugh.

The exercises of the week opened "If you are going to drive the car Sunday afternoon with the baccalaureyourself you want the car which is the ate sermon by President Fairchild easiest to operate, a car simple in de- from the text, "Where the spirit of the Lord is, there is liberty."-II. stand and easy to take care of. Un- Cor. 3:17. The speaker counselled necessary complications can always moderation and restraint in the exerbe criticized, even when an expert cise of the liberty gained by the student upon the completion of his col-"There is a growing recognition of lege course, showing by numerous refthe value of simplicity as an automo- erences that the boon might be wielded rate of 1,200 to 1,500 trees each day

INVOCATION TO YOUTH

Laurence Binyon

Come then, as ever, like the wind at

morning! Joyous, O Youth, in the aged world

renew Freshness to feel the eternities around

Rain, stars and clouds, light and the sacred dew.

The strong sun shines above thee: That strength, that radiance bring! If Winter come to Winter, When shall men hope for Spring?

SUNFLOWERS

SURELY NOT NOW

Occasionally a married man goes around half dressed because it takes too much to dress his wife.-Pine Bluff (Ark.) Commercial.

Old Bill Tripwell, who has spent most of his life trying to grow a seedless alfalfa, announces that he will devote his attention hereafter to producing a Jersey milkweed.

WHEN IN DOUBT, SAY SHAKESPEARE

In the afternoon, "The Rivals" was presented to a fair sized audience. In the evening, "The Tempest" was given. Both of these Shakespearean plays were put on in a highly pleasing manner.--Manhattan Nationalist.

COMMENCEMENT WEEK NECESSITIES

Caps and gowns Speeches Ideals Congratulations Blushes Tearful goodbyes Handsome young men Sweet young women Pa and Ma Pa and Ma's money Rain

And we plumb near forgot to mention Diplomas

UNDESIRABLE CITIZENS

4.

A blooming jay Is Charley Hewitt; Just hear him say, "I see you do it." -Pittsburgh Post.

Provoking guy Is Howard Brame; Just hear him say, "The train has came." -Butler Citizen.

We hate the gink, Till hate is spent, Who mourns, "Where Has Maggie went?" -Brooklyn Eagle.

An awful pill's The stylish youth Who winks and asks, "Ain't it the truth?"

That the profit from selling milk, butter, and cream is not the chief profit in keeping dairy cattle is pointed out by a gentleman of wide experience in the south. There is much greater profit in selling home grown feed to the cow than in selling on a poor market. Oat and vetch hay, corn stover, silage, cowpea hay, and sorghum can be grown at a very low cost and are among the best feeds for the dairy cow. If the cow is a good one she will pay full market price for the hay, and the farmer will not have to bale or haul to market. Keep records, charge the hay year by the large class, and eight to the cows, and weed out those that do not pay. Cheap milk cannot be made unless the farmer grows his own feed. Selling the cow home grown feeds not only makes cheap milk but permits the farmer to improve his land by having larger quantities of manure. Inland Farmer.

> A machine which plants from 10,000 to 15,000 forest tree seedlings a day is now being used at the Letchworth park forest and arboretum, in Wyoming county, N. Y., according to afficials of the forest service who are acting as advisers in the work. Previously the planting has been done by hand at the

Mrs. Gladys (Kirchner) Bunten, '14 is now living in Douglass.

Miss Stella Ballard, '10, expects to spend the summer in Minnesota.

Miss Lillian Weeks, '14, of Vermillion, will teach in the Clifton schools the coming year.

Miss Clare Biddison, '07, of the department of music, will spend next year in Chicago studying music.

W. A. Sumner, '14, instructor in journalism in the University of Wisconsin, is here for commencement.

Miss Laura B. Nixon, '11, who taught this year in Caney, will attend Columbia university, New York, next

Miss Pauline Parkhurst, '15, has been elected to the principalship of the rural high school at Offerle for next year.

J. W. Stockebrand, '15, who has been teaching in the high school in Central City, Nebr., will attend the summer session.

R. W. Getty, '12, has resigned his position in manual training at Tyler, Texas, and is now running a home dairy at Downs.

Harry Coxen, '15, has been elected to teach in the normal school at San Marcos, Tex. He will fill the position formerly held by his brother.

I. Loren Fowler, '12, who has been teaching in the college of agriculture, University of Nebraska, is at home in Manhattan for his summer vacation.

Miss Edith Givens, '13, who has been teaching home economics in the Lakin high school, will teach the same subject in the Lost Alma (Col.) schools this coming year.

L. E. Hutto, '13, who has been teaching in Escondada, Mich., will go to the Sweet Grass county high school in Montana as principal. He expects to attend summer school here.

The Rev. A. D. Rice, '92, pastor of the Methodist church at Kensington, has been transferred to the pastorate of a church at Okemah, Okla. He will leave for his new work July 2.

C. H. Popenoe, '05, is joint author with L. O. Howard, of a recent work, Farmer's bulletin 699, United States Department of Agriculture, "Hydrocyanic-acid Gas Against Household

Miss Margaret Justin, '09, is spending a month in Manhattan. She has been given an advance in position and salary, being now in charge of the extension work in domestic science in the Northern peninsula of Michigan.

Miss Clara Pancake, '03, who is teaching in the Iowa State Teachers college at Cedar Falls, writes that she is decidedly in favor of the alumni loan fund movement. Miss Pancake has been reëlected at Cedar Falls for the coming year.

Miss Mildred Inskeep, '12, will be secretary of the Young Women's Christian association of the college during the coming year. For the last four years she taught, having been last year dean of women in the College of Emporia.

Among the graduates of Cornell university this month are L. E. Hazen, '06, who receives the degree of mechanical engineer; R. R. Birch, '06, who received the degree of doctor of veterinary medicine from Cornell in 1912 and now receives the degree of doctor of philosophy, and J. E. Jenkins, '11, who receives the degree of mechanical engineer.

Dr. Grace (Wonsetler) Rude, '85, of Hoisington, is visiting her classmate, Mrs. Carrie Secrest Hungerford, this week. Mrs. Rude is justice of the peace in her township. She is heartily in favor of the alumni life membership plan and gave her check for the required amount. Her son, Warren A. Rude, '14, is with her. He is in business with his father in wheat farming.

Mrs. May Harris Burt, '05, of Boulder, Col., writes: "You might be interested in knowing that the '05 Al-

pha Beta chain letter is going on its twenty-seventh round. There are nine of the original members, seven 'in-law members and fourteen in the second generation. They are scattered from Plainfield, N. J., the home of C. W. Fryhofer, '05, to Spokane, Wash., where Mary Strite, '05, teaches in the city schools. The latest member is Carl F. Minneman, who was married to Jessie Ballou, '05, on May 3. They will make their home at Tescott, Kan."

BIRTHS

Born, to Mr. A. R. Fehn, and Mrs. Clara (Schild) Fehn, '08, a daughter, Beatrice Lucille.

ALUMNI SUPPORT MOVEMENT

Alumni in every part of the United States are writing in praise of the loan fund now being established for deserv-

GET THE INDUSTRIALIST

It is the desire of the college to place THE KANSAS INDUS-TRIALIST in the hands of all the alumni. If you are an alumnus and are not now on the mailing list, send the editor a postal card giving your name, class, and address, and the paper will be mailed to you free beginning with the next issue, which will be in September.

ing students of the Kansas State Agricultural college. Here are extracts from a few of the letters:

C. J. Burson, '01: "I am very much interested in the creation of a loan fund for students but I am more interested in creating a sinking fund to send five young ladies of mine through the Kansas State Agricultural col-

A. G. Philips, '07: "The student loan fund is a good thing, and I would like to see the alumni become as active as possible in college affairs."

Clement G. Clarke, '88: "Yes, I approve, I sympathize, I encourage the alumni plan."

Harry M. Ziegler, '14: "The members of the alumni that would be willing to pay \$20 for a life membership would always be interested in the association and the college. The association would not have to worry about them, but could devote all its time to keeping up the enthusiasm of the otherwise interest-lacking members."

Clay E. Coburn, '91: "In response to the letter sent out to the alumni members relative to the creation of a loan fund for the use of deserving students, I desire to add my approval to the project, and am ready to be enrolled as a life member at a fee of \$20."

n favor of such an arrangement as I know from experience in another Edith Nell Beaubien, Dodge City; Ada Franc Sweet, Manhattan; Emma Elizaschool that such funds can do much Grace Billings, Vermillion; Edith beth Taylor, Wichita; Rhoda Ethel real good. I shall be glad to take out Alice Boyle, Spivey; Mildred Bran- Tharp, Nickerson; Rose Viola Tipton, a life membership in the Alumni asso- son, Cambridge; Amy May Briggs, McPherson; Eva Esther Townsend,

ciation so that I may, in this way, contribute to the loan fund."

Miss Helen Day Henderson, '09: "I consider your alumni student loan fund idea splendid."

R. R. Birch, '06: "I am heartily in favor of the plan to establish a student loan fund, and I am glad to see the alumni take more active interest in the institution."

WILDIN PRAISES PLAN

My dear Miss Rice:

Replying to the Association's circular of May 12, I desire to say I consider this one of the best moves I have known to be inaugurated in connection with the college in a long time. Certainly every graduate of the colstitution at heart to the extent of taking out a life membership in the the fund to be accumulated will be used for such a worthy purpose.

As one of those who worked his way through college, I realize what it means to a boy to work his way through an institution where plenty of work is available and how much greater the difficulty where work is not so plentiful. I also realize with the tremendous growth in attendance at the college that even with a strong desire to work and pay their own expenses, there would be many deprived of this privilege because of the absolute lack of work, and I feel that I could donate \$20 to no more worthy cause than the one mentioned in your circular.

With very best wishes for the success of this campaign, and with a strong desire to be one of the first to record my approval of same, I inclose herewith postoffice money order for ing; Bodil Eleanor Mickelson, Lyn-\$20 for life membership in the associ-

If there is any way in which I can be of further assistance in this move, kindly feel free to command me.

Sincerely yours, G. W. WILDIN, '92.

New Haven, Conn.

275 TO ALUMNI ADDS

(Concluded from Page One) Archibald Glenn VanHorn, Over-

Doctor of Veterinary Medicine-George Holland Dean, Arkansas City, Earl Morris Dobbs, Manhattan; Cecil

Elder, Argonia; Gerald Woodward FitzGerald, Roswell, N. M.; Asa Flanagan, Chapman; Frederick Hartwig, Goodland; Eddell Charles Jones, Emporia; Samuel Robert McArthur, Walton; Eugene Franklin Pile, Man-George Thomas Reaugh, hattan:

IN HOME ECONOMICS DIVISION

Bachelor of Science in Home Economics-Agnes Redmond Abbott, Man-

hattan: Fannie Ernestine Brooks, Tescott; Wilma Burtis, Fredonia; Martha Christabel Conrad, Manhattan; Hannah Campbell, Attica; Kathleen Lenore Conroy, Manhattan; Grace Nancy Cool, Glasco; Cora Ellen De Vault, Ocheltree; Florence Edith Dodd, Langdon; Ethel Brown Duvall, Hutchinson: Frances Floretta Ewalt, Manhattan; Martha Fern Faubion, Oskaloosa; Elizabeth FitzGerald, Roswell, N. M.; Anna Grace Fox, Larned; Helen Moore Gardner, Manhattan; Mary Alice Gish, Sterling; Louise Greenman, Kansas City, Kan.; Josie Griffith, Manhattan; Hazel Kathryn Groff. Nortonville; Leota Lee Gromer, Manhattan; Esther Gygax, Osborne; Hillege should have the welfare of the in- degarde Harlan, Manhattan; Verda Harris, Manhattan; Elsie Elnora Hart, Edgar, Nebr.; Edna Avis Hawkins, Alumni association, especially since Lincoln; Helene Held, Clay Center; Marie Margaret Hellwig, Oswego; Nettie Hendrickson, Manhattan; Vivian Herron, Topeka; Bessie May Hildreth, Altamont; Clara Frances Hodges, Ottawa; Ruth Brandt Hoffman, Manhattan; Lydia Helena Hokanson, Marquette; Lillian Clair Jeter, Alden; Mary Florence Jones, Salina; Flor ence Justin, Manhattan; Vera Elma King, Milo; Vera Belle Kizer, Manhattan; Mary Steven Lane, Eskridge: Lillian Antoinette Lathrop, Manhattan; Bertha Blanche Lauger, Manhattan; Eva Myrtle Lawson, McPherson; Virginia Ann Layton, Blue Rapids: Mary Elizabeth Linton, Denison; Grace Margaret Lyons, Manhattan; Mary Elizabeth McKinlay, Udall; Ora Mae McMillen, Topeka; Elizabeth Abbie March, Topeka; Sara Janet Marty Manhattan; Lucile Maughlin, 'Sterldon; Anna-Lora Miller, Hoisington; Cecil Elizabeth Miller, Hoisington; Ella Ruth Milton, Stafford; Alice Montgomery, Wilsey; Vera Idol Moore, Hiawatha; Mary Rose Moss, Eureka; Corinne Myers, Marion, Ohio; Vivian Neiswender, Topeka; Alma Dale Newell, Matfield; Cleda Mae Pace, Osawatomie; Susan Rufina Paddock, Blue Mound; Florence Nell Peppiatt, Ellsworth; Ella Dunlap Phenicie, Tonganoxie; Edna Pickrell, Manhattan; Marie Pickrell, Manhattan; Helen Mitchell Pitcairn, Concordia; Cora Alberta Pitman, Manhattan; Thurza Elizabeth Pitman, Manhattan; Mary Elizabeth Polson, Fredonia; Iva Porter, Glen Elder; Mary Louise Price, Winfield, Iowa; Eula Bess Pyle, Lawrence; Nannie Clytice Ross, Burton; Grace Ethelyn Rudy, Manhattan; Mabel Gertrude Ruggels, Beverly; Pearl Eunice Schowalter, Halstead; Evelyn Schriver, Halstead; Mary Logan Scott, Parsons; Meta Viola Sheaff, Kansas City. Kan.; Esther Emily St. John, Manhattan; Hazel Belle St. John, Manhattan; Ruth Adams, Manhattan; hattan; Marie Story, Manhattan; E. H. Freeman, '95: "I am heartily Mary Edith Arnold, Cottonwood Falls; Julia Rena Strand, Independence; Florence Baker, Kansas City, Kan.; Kate Elizabeth Sumners, Riley; Mary

Sedgwick; Mary Weir Bright, Man-

Nickerson: Alberlina Tulloss, Ottawa; Mary Adaline Tunstall, Manhattan; Mary Edith Updegraff, Topeka; Wilma Irene Van Horn, Overbrook; Nellie Maude Vedder, Franklin, Nebr., Avis Louise Voak, Worthington, Minn .: Irene Walker, Manhattan; Edith Mary Walsh, Manhattan; Mamie Belle Wartenbee, Liberal; Florence Elouise Waynick, Wellington; Lois Kathryn Wemmer, Princeton; Ida May Wilson, Manhattan; Lois Emily Witham, Manhattan.

IN ENGINEERING DIVISION

Bachelor of Science in Mechanical Engineering-Joseph Jesse Abernethy, Manhattan; John Irl Michaels, Manhattan; John Prosser Rathbun, Downs; Frank Richard Rawson, Wamego; Charles David Sappin, Manhattan; Thomas Kenneth Vincent, Kansas City, Mo.; Leslie Adam Wilsey, Chapman; Charles Herman Zimmerman, Stilwell.

Bachelor of Science in Electrical Engineering-Benjamin McKinley Andrews, Norcatur; Ralph Gahan Baker, Malta Bend, Mo.; Antis Monteville Butcher, Solomon; Nelson Harry Davis, Delavan; Walter Emil Deal, Great Bend; George Louis Farmer, Wichita; James Sidney Hagan, Manhattan; Charles Thomas Halbert, Agra; William Wallace Kennedy Hervey, Centralia; Arthur Edward Hopkins, Tonganoxie; Arlie Noel Johnson, Atwood; Talbot Roy Knowles, Manhattan; Henry Dall Linscott, Milford; Otto Irl Markham, Manhattan; Louis Reynolds Parkerson, Manhattan; Joseph Glen Phinney, Riverside, Cal.; Gilbert Haven Sechrist, Meriden; Doddridge Calvin Tate, Manhattan; George Lin Usselman, Coldwater.

Bachelor of Science in Civil Engineering-George Shearer Douglass, Marysville; Forrest Everette Gilmore, Manhattan; George Noel Herron, Kansas City, Kan.; Joseph Irwin Jacques, Manhattan; Lawrence Leonard, Wamego; Wayne Ramage, Arkansas City.

Bachelor of Science in Architecture -George Wilson Christie, Manhattan; Lloyd Martin Reudy, Dodge City; Elmer Warren Wilson, Kansas City,

Bachelor of Science in Agricultural Engineering-John Hanna Welsh, Atchison.

IN GENERAL SCIENCE DIVISION

Bachelor of Science-Francis Waite Albro, Manhattan; Edith Louise Alsop, Wakefield; Edith Emma Arnold, Manhattan; Wellington Tufts Brink, Manhattan; Katharyn Woodrow Curless, Pittsburg; Lola Davis, Guthrie Center, Iowa; Jessie Jane De-Vault, Ocheltree; Earl Raymond Harrouff, Mound City; Phoebe Jane Lund, Manhattan; Harold Mark McClelland, Manhattan; Robert Urie McClenahan, Manhattan; William Gladstone Mc-Ruer, Manhattan; Leon Newton Moody, Riley; Raymond Reed Neiswender, North Topeka; Edgar Leon Noel, Glasco; Edward John Otto, Riley; Elliott Ranney, Manhattan; Mary Louetta Taylor, Manhattan; Marcia Edythe Tillman, Manhattan; Zorada Zerna Titus, Wakarusa: Ralph Pierce Van Zile, Manhattan; Charles Armand Willis, Manhattan; Emily Thomas Wilson, Manhattan; Laura Rea, Miltonvale.

Bachelor of Science in Industrial Journalism-Eva Hostetler, Manhattan; Dorian Paul Ricord, Esbon; Ethel Dresia Strother, Manhattan.

ADVANCED DEGREES CONFERRED

Master of Science-Walter Albert Buck, Manhattan; Harry Winfield Cave, Manhattan; Jesse Johnathon Frey, Manhattan; Lee Roy Light, Manhattan; Lloyd Franklin Metzler, Spearville; John Carson Ripperton, Wichita; Lawrence Paul Wehrle, Scranton.

Civil Engineer-Con Morrison Buck, Caney, Iowa; Walter Van Buck, Junction City; Glen Edgar Edgerton, El Paso, Tex.; Elmer George Gibson, Topeka; Albert Richard Losh, Manhattan; Ray Thurman Wells, Parsons; Arthur Rhodes, Topeka.

Mechanical Engineer-Walter William Carlson, Manhattan; William Henry Sanders, Manhattan; Earle Locke Shattuck, Ruston, La.

Electrical Engineer-Albert Stoddard, Kansas City, Mo.

State Board of Administration



ED. T. HACKNEY



EDWARD W. HOCH



MRS. CORA G. LEWIS

With the commencement exercises of the Kansas State Agricultural College, the members of the board of administration close a round of attendance at graduation ceremonies of the institutions under their control. All three members of the board are here today.

WHY SOME FAIL IN LIFE

SENATOR W. P. LAMBERTSON EX-PLAINS CAUSES OF INEFFICIENCY

Waste of Health, Carelessness, Inaccuracy and Unwillingness to Try Hard Tasks Impair Success of Many, Speaker Tells School of Agriculture

LAMBERTSON ON LIFE AIMS

Culture and industrial training go hand in hand.

We should aim high but not lose sight of the earth.

Opportunity for material prosperity lies everywhere-it depends only on yourself.

In your community do those hard things which others hate to do but which must necessarily be

Times are changing-the future is full and it awaits you.

You should have self reliance and strength of purpose. These will determine your success.

The common breaks in life which cause failures are not the breaks of poverty. The first primary break is the waste of physical health, pointed out W. P. Lambertson of Fairview, senator from the first district, who delivered the address at the commencement exercises of the school of agriculture Friday night.

"Of the three great factors that count the most in our lives-address, personal appearance, and optimism-the last two depend on good health and sound physical condition," said Mr. Lambertson.

GOOD BOOKS FOR COMPANIONS

"The second common break in life is carelessness and failure to win and keep a good name. What you eat, drink, and wear is not so important as the choice of your companions.

"We should first choose the companionship of good books. There are some people who are hysterical when left alone 15 minutes. They demand association. Their lives do not develop because they have not formed companions of themselves.

"Unwillingness to do the hard things of life is another break and cause of failure. At the convention in Chicago this week, I was told that whenever they had anything hard to do they made Senator Smoot chairman of that committee. Hard work was the thing that that man had not shunned.

"The young generation is shunning the difficult paths. It is seeking the professional callings where it thinks it will meet with the least resistance. PUNCTUALITY INDEXES CHARACTER

"Lack of punctuality and accuracy causes serious breaks in life. The first requirement in business is to be at the right place at the right time Punctuality is the index of character.

"Again, many a life is ruined because of the failure to pay bills. How many a minister, teacher, and promising business man has been ruined by carelessness in paying bills. When a note is due at the bank, no matter how well you stand or how much money you have, try to meet it on the day it is due and never fail. If you owe 27 cents pay 27 cents. It is indicative of character to be accurate and on time in your business dealings."

DIPLOMAS TO NINE GRADUATES

The students graduated from the agricultural course were Harry Hamilton Bearman, Johnson; Floyd Acton Brown, Sylvan Grove; Walter Roy Harder, Minneapolis; Walter George Oehrle, Lawrence; Robert Earl Saxton, Everest.

William Dennis Scully, Belvue, was the only student to receive a diploma from the course in mechanic arts.

Miss Margaret Eunice Colwell of Emporia, Miss Ethel Grace Gorton, Manhattan, and Miss Ellen Ovedia Larsen, Concordia, received diplomas from the course in home economics.

The invocation was pronounced by the Rev. Drury Hill Fisher, pastor of the First Presbyterian church. Music was furnished by the college orchestra, Truesdell, soloist.

Dr. Henry J. Waters, president of the Kansas State Agricultural college, presented the diplomas to the gradu-

MANY GET ATHLETIC HONORS

H. L. Kent, principal of the school of agriculture, conferred athletic honors upon the following students, who received certificates entitling them to wear the "A" awarded by the Athletic association:

Baseball-M. C. Danby, Leo Mc-Grath, J. V. Quinn, W. D. Keene, T. W. Cleland, R. H. Kobes, P. E. Neale, J. B. Sahlberg, and C. B. Quigley.

Football-E. A. Hoke, H. A. Muir, George Hinds, T. W. Cleland, D. M. Howard, W. C. Mills, and P. E. Neal. Basketball-S. E. Banks, W. R. Johnston, F. A. Brown, E. A. Hoch, George Hinds, and T. W. Cleland. Track-H. E. Beatty.

HIGH HONORS TO MANY

(Concluded from Page One)

S., D. Sc., Cornell, Hanover, N. H., president of Dartmouth college, elected to professorship in physics, Yale uni-

1889-Clarence Everett Freeman, B. S., M. S., E. E., Chicago, Ill., consulting engineer, hydro-electric and irrigation installations.

1890-Silas Cheever Mason, B. S. M. S., Washington, D. C., arboriculturist, bureau of plant industry, United States department of agriculture; Marie Barbara Senn Heath, B. S., M. S., Seattle, Wash., professor of household economics, North Dakota Agricultural college, 1894-1902; Walter Tennyson Swingle, B. S., M. S., Washington, D. C., physiologist in crop physiology and breeding experiments, bureau of plant industry, United States department of agriculture; Harry Nichols Whitford, B. S., M. S., Ph. D., University of Chicago, Victoria, B. C., special forester, commission of conservation of Canada.

1891—Gertrude Coburn Jessup, B. S., Chicago, Ill., professor of domestic economy, Iowa State college, 1896-1900; Kary Cadmus Davis, B. S., M. S., Ph. D., Cornell, Nashville, Tenn., head of agricultural department, Peabody College for Teachers; Frank Albert Waugh, B. S., M. S., Amherst, Mass., head of division of horticulture and professor of landscape gardening, Massachusetts Agricultural college.

1892-Charles Pinckney Hartley, B. S., M. S., Washington, D. C., physiologist in charge of corn investigations, bureau of plant industry, United States department of agriculture; Daniel Henry Otis, B. S., M. S., Madison. Wis., assistant dean and professor of farm management, college of agriculture, University of Wisconsin; Fred C. Sears, B. S., M. S., Amherst, Mass., professor of pomology, Massachusetts Agricultural college; George Washington Wildin, B. S., New Haven, Conn., mechanical superintendent of the New York, New Haven, and Hartford railroad.

1893-Laura Greeley Day Jones, B. S., Ontario, Cal., director department of domestic seience, Stout institute, 1902-1908; Mary Maude Gardiner Obrecht, B. S., M. S., Topeka, professor of household science, Oklahoma Agricultural and Mechanical college, 1900-1904; Ivy Harner Selvidge, B. S., M. S., Nashville, Tenn., professor of household economics, Purdue university, 1905-1908; Rose Edith McDowell Helder, B. S., Manhattan, professor of household economics, Montana State Normal school, Dillon, Mont., 1913-

1894 - George Luther Christensen, B. S., Houghton, Mich., head of department of mechanical engineering, Michigan College of Mines.

1895-Florence Ruth Corbett Kent, B. S., M. S., Rome, N. Y., for many years dietition, department of public charities, New York city, and instructor in Teachers' college; Robert John his wooden plow pulled by his ox? Barnett, B. S., M. S., Pullman, Wash., professor of pomology, State College ested in our twentieth century farmer? of Washington; Ernest Harrison Freeman, B. S , E. E., Chicago, professor of electrical engineering, Armour In- us to emancipate the ox by the gasostitute of Technology; Theodore Wat- line engine, has told us how we may tles Morse, B. S., M. S., Olathe, edi- dig three furrows at once instead of the music department sang "The Lord school, Clay Center, domestic science; the faculty quartet, and Miss Beulah tor of the American Breeder, Kansas one, and has lifted the feet of the weary

Kansas Farmer.

1896-Royal S. Kellogg, B. S., M. S., Chicago, Ill., secretary of the National Lumber Manufacturers' association; John Bitting Smith Norton. B. S., M. S., Hiattsville, Md., professor of botany, Maryland Agricultural college, and state pathologist of Maryland; Edwin Harrison Webster, B. S., M. S., Oakland, Cal., general superintendent, California Central cream-

1897-Robert Waitman Clothier, B S., M. S., Washington, D. C., with bureau of farm management, division of plant industry, United States department of agriculture; Philip Fox. B. S., M. S., Evanston, Ill., astronomer, Dearborn observatory, Northwestern university, Jesse Baker Norton, B. S., M. S., Washington, D. C. physiologist, cotton and truck disease investigations, United States department of agriculture.

1897-John Minton Westgate, B. S. M. S., Washington, D. C., agronomist in charge of Hawaii Agricultural Experiment station, Honolulu, T. H.

1898-William Logan Hall, B. S. M. S., Washington, D. C., assistant forester in charge of acquisition of land under the Weeks law, forest service, United States department of agriculture.

1899-Albert Thomas Kinsley, B. S. M. S., D. V. S., Kansas City Veterinary college, Kansas City, Mo., president and pathologist, Kansas City Veterinary college.

1900-Elizabeth Jane Agnew, B. S. Hays, professor, home economics department, Fort Hays Kansas Normal school; Harry M. Bainer, B. S., M. S. A., Iowa State college, Amarillo, Tex., agricultural demonstrator, Santa Fé railway system.

1902-Arthur Henry Leidigh, B. S. College Station, Tex., agronomist in charge of soil improvement, Texas experiment stations.

1903-Richard Franklin Bourne, B. S., D. V. S., Kansas City Veterinary college, Kansas City, Mo., professor of physiology and histology, Kansas City Veterinary college; Curtis Hernon Kyle, B. S., Washington, D. C., assistant physiologist, corn investigations, United States department of agriculture; Russell Arthur Oakley, B. S., Washington, D. C., agronomist, forage crop investigations, United States department of agriculture; Helen Bishop Thompson, B. S., M. S. New London, Conn., professor of dietetics, Connecticut College for Women; Harry Nelson Vinall, B. S., Washington, D. C., agronomist, forage crop investigations, United States department of agriculture.

1904—Charles Sumner Dearborn, B S., Bozeman, Mont., professor of mechanical engineering, Montana State college; Glen Edgar Edgerton, B. S., Fort Sam Houston, Tex., captain, corps of engineers, United States army; Alice Marie Loomis, B. S., Lincoln, Nebr., professor of home economics, University of Nebraska; Flora Rose, B. S., Ithaca, N. Y., professor of home economics, college of agriculture, Cornell university; Orville Blaine Whipple, B. S., Bozeman, Mont., professor of horticulture, Montana Agricultural college.

1905-Ula May Dow, B. S., A. M in Education, Columbia university, Boston, Mass., assistant professor of home economics, Simmons college: Margaret Helen Haggart, B. S., Manhattan, professor of domestic science, Kansas State Agricultural college: Earl Wheeler, B. S., E. E., Washington, D. C., local manager, General Electric company; Jessie May Hoover, Moscow, Ida., professor of home economics, University of Idaho.

GIVES TEST OF VOCATION

(Concluded from Page One)

And is not the same God equally inter-He has taught us to replace the wooden plow by the steel implement, has led

B. S., Topeka, associate editor of the his traction engine. What more he may have for us no one can tell. But all this has come from him.

SCIENCE REVEALED BY GOD

"What a long distance we are from the time when the sickle in the tired hand cut the grain, and sore fingers bound it into sheaves, and cattle trod out the grain from the wheat heads, and arms ached as on windy days men threw everything into the air that the kindly wind might carry off the straw and chaff, and let the dirty grain fall near the worker. Now our engine thresher enters a field, cuts off the heads of standing grain, and puts the clean product, untouched by hands, into bags ready for market. And what is true of the farmer and plowman is true of all life. God is working in us to relieve us of natural burdens, precisely because we are working out our salvation from drudgery.

SEE VISIONS IN LABORATORY

"That true attitude of soul will find the same good visions of our heavenly Father in our laboratories, our experi mental farms, our stirpiculture. All we have come to know about improving our grains and flowers, about our breeding of animals and caring for them, about the adaptation of seeds to soils, bears witness to the continuous brooding of the heavenly Father over the development of his earthly children. If we know more than Canaanite farmers, we should see in our greater skill not only more dollars but more

"All that the poetic temperament of the Hebrews felt about the relation of God to the daily life of the farmer, has been vastly enlarged by the scientific developments of our own age. It is blasphemous to say that science has pushed God out of his universe. It is in Texas, Missouri, and Tennessee. only truth to say that our science is one of the greatest modern interpreters of the living God at work in his uni-

MODERN POETS INTERPRET GOD

"Moreover, let us be thankful not only for the deeper meanings that science puts into the old poetic expressions of the Hebrew people, but be grateful also for all the new visions that are native to our day and could not be anticipated by any previous age. Our modern poets as truly interpret God as did the Hebrew poets. Our modern scientific men bring us visions of God as real and true as any we find in Hebrew poetry. They write books upon such topics as 'The Bible in Nature' and 'The Spiritual Interpretation of Nature.' They are stating the ministry of the living God in terms of the life to which he is ministering May God save us from the blindness that sees only the God who used to be but knows nothing of the God who is. Let us not shy at the statements of the prophets of today, who bring us their visions of the ever living God in words that belong to our own generation. We are rich not only in all the past but in our own enlarging glimpses of the way our Father leads us.

DON'T POSTPONE MORALIZATION

"The only millennium worth thinking about is the making of all life beautiful with the glory of God. We should not deceive ourselves by postponing the moralization of all life until after some great spectacular and catastrophic event. Here and now we are to order all life's normal activities with justice, love, faith. The kingdom of God does not displace business, destroy social life, banish amusements from the world, throttle education, denounce science as godless, and turn life into funeral gloom. It is leaven that permeates all life with life, joy, peace, righteousness. It is the spirit of moral goodness, justice, sacrificial life, flooding our industries as the light bathes the earth, illuminating everything but displacing nothing.

At the baccalaureate services the Rev. Lewis Jacobsen, pastor of the First Baptist church, Manhattan, read the lesson from the scriptures and pronounced the invocation. Miss May Carley and Prof. A. E. Wesbrook of Wilma Van Horn, Clay county high is My Light," by Buck. The college C. A. Willis, Ada, principal of rural City, Mo.; George Carpenter Wheeler, | walker from the ground as he sits upon | orchestra played several selections.

MAINLY GIRLS TO TEACH

WOMEN OUTNUMBER MEN IN CHOICE OF PEDAGOGIC PROFESSION

Forty-one Members of Class of 1916 Have Definitely Decided to Spend Coming Year in Instructional Work. Chiefly in High Schools

Twenty-eight young women and 13 young men graduated this morning from the agricultural college plan definitely to spend the coming year in teaching. There will probably be additions to the number, as usual, in the summer.

Nearly all the young women will teach home economics, though with the increased opportunity now given here for literary work some have positions in English and kindred subjects.

A large proportion of the men who receive degrees in agriculture will return to the farm. Practically all the engineering graduates are entering the service of big industrial corporations, the demand for men in this field having been greater than the college could supply.

LUEKER LANDS HIGH POSITION

Pure science, agriculture, and manual training are the fields that most of the young men who will teach are entering. Several plan also to coach athletic teams in high schools.

Charles G. Lueker stands at the top in point of position secured. After considering a large number of candidates, the board of regents of the Second District Agricultural school at Russellville, Ark., elected Mr. Lueker president of the institution.

Mr. Lueker came to this institution from the University of Arkansas. He has teaching experience in schools

THESE ARE FUTURE TEACHERS

Members of the class of 1916 who have accepted positions are as follows: R. V. Adams, Paola, athletics and sciences; L. R. Alt, Little River, agriculture and manual training; Edith Emma Arnold, Norwich, mathematics and sciences; W. B. Adair, Kimball county high school, Kimball, Nebr., agriculture and orchestra; Margaret I. Bruce, Oskaloosa, home economics and music; McArthur B. Brush, Stockton, agriculture; Mildred Branson, Moline, domestic science; Mary W. Bright, El Paso, Tex., domestic science; Hannah Campbell, Attica, grade work; G. E. Denman, Cawker City, agriculture and manual training; Mary Dunlap, Peabody, domestic science and domestic art; Cora DeVault, Langdon, principal of rural high school; Faith Earnest, Clyde, English; N. A. Gish, Williamsburg, agriculture, principal of rural high school; Hazel Groff, Lansing domestic science and German; Mary Alice Gish, Wathena, domestic science: vdia Hokanson, Woodhine domestic science; Nettie Hendrickson, Argonia, domestic science; Helene Held, Clay Center, domestic art and drawing in the grades; Eva Hostetler, Kearney, Nebr., English and news writing; Edna Hawkins, Council Grove, domestic science and mathematics; Charles Lucker, president of agricultural school, Russellville, Ark.; Blanche Lauger, Lindsborg, home economics: Marc Lindsay, Minneapolis, agriculture and manual training: Jay Lush, Pratt, agriculture; E. K. McGallaird, Coffeyville, agriculture and athletics; Harold McClelland, Coffeyville, sciences; Ora McMillen, Topeka, domestic art; Mary McKinley, Oxford, domestic science; Bodie Mickelson, Chickesha, Okla., domestic science; T. E. Moore, Onaga, agriculture; Alma Dale Newell, Cawker City, home economics and history; Mary Louise Price, Winfield, Iowa, domestic science; Cleda M. Pace, Osawatomie, domestic science; Elliott Raney, Manhattan, mathematics; Rena Strand, Cloquet, Minn., home economics; Marie Story, Greenleaf, domestic science; Esther St. John, Quinter, domestic science; Kate E. Summers, Riley, rural school; Mary Tunstall, Aspen, Col., domestic science;

THE KAMBAS INDUSTRIALIST and save the froutle of an am THE KANSAS INDUSTRIAL

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Kansas State Agricultural College, Manhattan, Saturday, July 1, 1916

Number 37

BURTIS HEADS ALUMNI

MEMBER OF CLASS OF 1887 IS PRESI-DENT OF ASSOCIATION

Board of Directors is Elected Under Newly Revised Constitution—Advisory Council Reports-Permanent Headquarters Planned for 1917 Commencement

W. J. Burtis, '87, of Fredonia is the new president of the Kansas State Agricultural College Alumni association. Mr. Burtis was chosen at the meeting in commencement week.

Mr. Burtis is engaged in farming, and served two terms as representative from Woodson county in the Kansas legislature. He has a son, O. B. Burtis, and a daughter, Miss Wilma Burtis, in the class of 1916.

The other officers are vice-president, Dr. J. T. Willard, '83, dean of general science in the Kansas State Agricultural college; secretary, Miss Ada Rice, '95, assistant professor of English and assistant principal of the school of agriculture; treasurer, L. A. Fitz, '02, professor of milling industry.

CONSTITUTION IS REVISED

At the business meeting of the association, the constitution was revised and under it the following board of directors was elected:

For one year-Miss Ada Rice, '95, Manhattan; W. J. Burtis, '87, Fredonia; L. A. Fitz, '02, Manhattan.

For two years-H. C. Rushmore, '79, Kansas City, Mo.; Dr. J. T. Willard, '83, Manhattan.

For three years-George H. Failyer, '77, Manhattan; H. W. Avery, '91, Wakefield; Miss Mildred Inskeep, '12, Emporia.

The advisory council submitted an and progress in its work. The council consists of H. W. Avery, '91, Wakefield; George C. Wheeler, '95, Topeka; J. W. Berry, '83, Jewell City; Miss Bird E. Secrest, '92, Randolph; Miss Frances L. Brown, '09, Manhattan.

The association made plans for permanent alumni headquarters for the entire week of the 1917 commencement. Someone will be in charge every day to welcome the returning alumni and give advisory council shall make a report available information. It will also be at the annual meeting of the associa gathering place for the graduates throughout the week.

TO REMEMBER DECEASED GRADUATES

Another step in advance was made when a committee on necrology was appointed. Notices of deaths of alumni should be sent to some member of the committee, who will prepare a suitable memorial to be read at the next annual meeting of the association. The committee consists of George H. Failyer, '77, Miss Alice Melton, '98, and George A. Dean, '95, all of Manhattan; H. C. Rushmore, '79, 308 Lawn avenue, Kansas City, Mo.; and Roy E. Gwin, '14, of Morrowville.

The business meeting of the Alumni association was one of the most enthusiastic ever held. Members from 24 classes responded to roll call, many classes being represented by a large number of members.

The constitution of the association as amended now stands as follows:

ARTICLE I-MAME

Section 1. This organization shall be known as the Alumni association of the Kansas State Agricultural college. ARTICLE II-OBJECT

Section 1 The object of this association shall be the promotion of the interests of the college, and of acquaintances among its graduates.

ARTICLE III-MEMBERSHIP

Section 1. The association shall consist of members, associate members, and honorary members.

Section 2. Graduation from the Kansas State Agricultural college shall constitute membership.

Section 3. Persons not themselves graduates shall upon marriage with a graduate become associate members.

Section 4. Upon recommendation of the officers of the association, at any annual meeting, friends or former officers of the college may be elected honorary members. They shall be exempt from payment of dues and assessments, they may not vote or hold office, make or second motions, but shall possess all the other rights and privileges of members.

Section 5. The dues of the association shall be \$1 a year. Active, honorary, and associate members who wish to be identified with our enterprises, may secure a paid up membership upon payment of \$20. All funds derived from memberships shall be under the direction and control of the board of directors.

ARTICLE IV-BOARD OF DIRECTORS

Section 1. The control of the association shall be vested in a board of directors consisting of nine members. The directors shall be elected at the annual meeting for a term of three years, but of the seven new directors elected at the first meeting of the association after the adoption of this amendment, two shall be elected for one year, two for two years, and three for three years so that three new directors shall be elected each year thereafter.

Section 2. The board of directors shall appoint an advisory council consisting of five members in two classes. One class of two shall be appointed annually. The second class shall consist of three members whose regular term of appointment shall be three years. The first year that this amendment is in effect appointments made in excellent report, showing deep interest the three-year class shall be for one year, two years, and three years respectively, and as these expire succeeding appointments shall be for three years, one being appointed each year. It shall be the duty of this ices will be held tomorrow. Interment the college, with the deans, and with tery. other college authorities and to assist in the furtherance of the interests of the college wherever possible. The

Section 3. The officers of the board shall be the officers of the association. and expenses of reunions and social of philosophy from that institution in both writers deserve much honor for meetings, and may levy special assess ments, not to exceed one dollar.

ARTICLE V-MEETINGS AND REUNIONS Section 1. An annual meeting shall be held at the college during each commencement week.

Section 2. The dates and character of social meetings shall be determined by the board of directors.

Section 3. Assessments to meet the expenses of social meetings and reunions shall be made upon members and associate members in attendance.

ARTICLE VI-AMENDMENTS

Section 1. This constitution may be amended or revoked by a three-fourths vote of all members present at any annual meeting, provided that at least one month's notice shall have been given through THE INDUSTRIALIST.

Section 2. The by-laws may be temporarily suspended at any annual meeting by a two-thirds vote of the members present.

ARTICLE VII—RULES OF ORDER Section 1. Roberts' Rules of Order shall be the authority on all points of

parliamentary order.

Nobody can read the summer resort booklets that now fill the mails without being convinced that there's still a good deal of optimism left in the world.

NOTABLE FIGURE AT AGRICULTURAL COLLEGE PASSES AWAY

For 14 Years Doctor Brink Held Office of Responsibility in Institution-He Was a Fine Type of Polished Gentleman

Dr. C. M. Brink has been a notable figure at the agricultural college for the last 14 years, and his numerous friends among former members of the faculty and the student body will learn with surprise and regret of his death, Thursday, June 29, at the Brink summer home near Hayward, Wis.

To those in more intimate touch with him it has for some time been a source of regret that disease had made serious inroads upon his constitution. The end came in a stroke of apoplexy, June 26, from which he never returned to consciousness. The funeral serv-



DR. C. M. BRINK

council to advise with the president of will take place in the Manhattan ceme-

Clark Mills Brink received the degree of bachelor of arts from the University of Rochester in 1879, and was graduated from the Rochester Theological Seminary in 1882. He ministered to the First Baptist church of Des Moines, Iowa, from 1882 to 1887. He was a fellow and graduate student Section 4. The board of directors of New York university from 1888 to these productions should be placed shall have charge of the arrangements | 1892 and received the degree of doctor | ahead of the other it was agreed that 1894. The University of Rochester honored him with the degree of master of arts in 1893.

Doctor Brink further added to his scholastic training by graduate work in the University of Chicago, summer of 1900, and at Harvard university, 1901-1902. He was instructor in rhetoric and oratory in Brown university, 1892-1895, and professor of English and history in Kalamazoo college from 1895 to 1901.

CAME TO MANHATTAN IN 1902

With this ripened scholarship and seasoned experience, Doctor Brink, in 1902, came to the Kansas State Agricultural college as professor of English. In 1911, at his own request, he was relieved of responsibility for the instructional work in the English language, and gave his entire attention to English and American literature. He retained to the end active charge of this field, and during this period produced "The Making of an Oration," a book which elicited much favorable comment.

For some years the load carried by the president of the college had seemed too heavy for adequate personal attention and in 1908, the board appointed Doctor Brink as assistant to the president. At the same time an organization under deans was provided, and Doctor Brink was made dean of ingly inadequate and insignificant.

DEATH OF DEAN BRINK science. A year later the plan of organization was modified and he was made dean of the college. His duties in these positions were such as were from time to time designated by the president of the college, and were performed with scrupulous care and fidelity.

COUNSELOR AND LECTURER

On account of failing health the board of administration, at the request of Dean Brink, recently honored him by appointment as professor of English literature and dean of the college, emeritus. It was hoped that with this relief from routine duties, he might be able to serve the college for many years as a counselor and cultured lecturer.

Doctor Brink was a fine type of the polished gentleman, cultivated in the old school, and successfully transplanted to the environment of a modern technical institution. In him were blended, high ideals of citizenship, lofty moral and religious sentiments faithfulness to duty, warm family affections, loyalty to friends, and susceptibility to the charms of nature. His life was rounded out as a perfect fruit, and as a white sheaf he was garnered from the field of life.

In Mrs. Brink, Dean Brink had a charming and effective colleague in furthering the religious and social welfare of the student body, and in creating a splendid example of family life. It is particularly gratifying that the father was spared until their three sons, Laurence, Raymond and Wellington, had completed college courses, and given evidence of their unusual worth.

JAMES B. ANGLE IS PRIZE WINNER IN STORY CONTEST

Arthur Boyer and Miss Stella Barnum Tie for Second Place

In the Quill club short story contest just closed, James B. Angle, of Courtland, received first honors. The subject of the story written by Mr. Angle was, "The Inevitable," and showed much ability and work on the part of the writer. A gold medal was given

"The Kafir Girl of the Vaal," by Arthur Boyer, and "The Lost Slipper," by Miss Stella Barnum, tied for second place. Although it was impossible for the judges to decide which of their respective productions.

L. R. Hiatt won third honors. The subject of the story by Mr. Hiatt was, "A Game of Singles."

ROYAL PURPLE CONTAINS INTERESTING FEATURES

Senior Annual Is Dedicated to State of Kansas-The Staff

The Royal Purple, the annual published by the senior class, contains this year many interesting features. It is dedicated to the state of Kansas and contains a portrait of Governor Arthur Capper, and brief illustrated articles on eight of the principal towns of the state. The book is of much higher literary standard than usual.

The book was prepared by a staff consisting of W. C. Calvert, manager; P. H. Wheeler, editor-in-chief; H. M. McClelland, advertising manager; Miss Eva Lawson, secretary; George C. Ferrier, treasurer; Miss Florence Justin, assistant editor; Fred Korsmeier and L. E. Reudy, artists; Miss Mildred Branson, class editor; Miss Mary Polson, humorous editor; T. K. Vincent, snapshot editor; L. A. Maury, athletic editor; G. N. Schick, class editor; and Harlan Sumner, organization editor.

A bathing suit must feel embarrass-

FUND IS ABOVE \$2,500

OPENS WAY FOR LOANS TO MANY DESERVING STUDENTS

Loyal Alumni Add More Than \$1,500, and Many More Pledges Are Looked for This Summer-Plan Started by President Waters

Through the loyal efforts of the alumni of the Kansas State Agricultural college the student loan fund has now reached a total of more than \$2,500 in cash and pledges, practically all of which will be available at the opening of college in September. The alumni contributions to the fund amount to \$1,520.

The fund was started by Dr. Henry Jackson Waters, president of the college, who consented to the adoption of his book, "Essentials of Agriculture," as a text in Kansas high schools only on condition that he be permitted to turn back the royalties received from its sale in the state to a student loan fund. The first check for this royalty, amounting to \$678.80, has been received. It covers the period from September, 1915, to February, 1916.

READY RESPONSE TO APPEAL

Doctor Waters urged the loan fund upon the attention of the alumni at the annual banquet in Kansas City, and there was instant response. Many alumni made pledges, and Governor Arthur Capper mailed in his check for \$100, as did also L. R. Eakin of Man-

The matter was again taken up at the annual commencement dinner in Nichols gymnasium, where there were present 600 persons. H. W. Avery, '91, retiring president of the alumni association, introduced Edward W. Hoch, former governor and member of the board of administration, as chairman. Brief addresses were made by Dr. P. P. Claxton, United States commissioner of education, who delivered the commencement address; Ed. T. Hackney, president of the board of administration; President Waters; H. C. Rushmore, '79; Mrs. Henrietta Calvin, formerly a professor in the college; Cliff Stratton, '10; and H. M. McClelland, life president of the class

PLEDGES FROM OLD GRADS

Many pledges were made at the meeting and many more are expected in the summer and early fall. The list of alumni pledges; arranged by classes follows:

1879-H. C. Rushmore, Kansas City. 1882-Mrs. Mattie Mails Coons, Manhattan.

1883-J. T. Willard, Manhattan; J.

W. Berry, Jewell City. 1884-C. L. Marlatt, Washington,

1885-Albert Deitz, Kansas City, Mo.; Dr. Grace W. Rude, Hoising-

1887-W. J. Burtis, Fredonia.

1888-Ernest Fox Nichols, Hanover, N. H.; Miss Abby Marlatt, Madison,

1890-W. H. Sanders, Manhattan. 1891-Mrs. Fannie Waugh Davis, Nashville, Tenn.; Kary Cadmus Davis, Nashville, Tenn.; E. D. Williams, Kansas City, Kan., in memory of Lillian St. John Williams, who died December 8, 1915; Dr. Clay Coburn,

Wakefield. 1892-George W. Wildin, New Haven, Conn.

Kansas City, Kan.; H. W. Avery,

1893—Albert Dickens, Manhattan.

1895-E. H. Freeman, Chicago, Ill.; G. C. Wheeler, Topeka.

1896-Roy S. Kellogg, Chicago, Ill. 1897-C. B. Ingman, Barnes; Miss Anna Blackman; Mrs. Harriet Vandevert Remick, Manhattan; B. R. Hull, Manhattan.

1898-Miss Minnie Copeland, New (Concluded on Page Four)

Published weekly during the college year by the Karaas State Agricultural College. Manhattan, Kan.

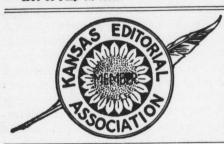
H. J. WATERS, PRESIDENT Editor-in-Chief N. A. CRAWFORD...... Managing Editor J. D. WALTERS.....Local Editor ADA RICE, '95, M. S. '12..... Alumni Editor

Except for contributions from officers of the college and members of the faculty, the articles in The Kansas Industrialist are written by students in the department of industrial journalism. The mechanical work is done by the department of printing. Of these departments Prof. N. A. Crawford is head.

Newspapers and other publications are in-ited to use the contents of the paper freely

The price of THE KANSAS INDUSTRIALIST is 75 cents a year, payable in advance. The paper is sent free, however, to alumni, to efficers of the state, and to members of the legislature.

Entered at the post-office, Manhattan, Kan., as second-class matter October 27, 1910. Act of July 16, 1894.



SATURDAY, JULY 1, 1916

The alumni of a college can build it up or destroy it. The graduates of the Kansas State Agricultural college are the building kind.

AN ITEM A YEAR

THE INDUSTRIALIST is the only general means of communication among the alumni of the college. It is the only way in which the alumni can hear, to any considerable degree, of the work and plans and life of one

But the only chance for THE INDUS-TRIALIST to hear of all these things and tell all the alumni is through every graduate's making himself a voluntary reporter. If every graduate would send in every item of interest about himself and other alumni whom he meets, the alumni columns of the paper would be transformed. A good many of the younger alumni do this, but few of the older ones do, and yet it is the older ones who are, for the most part, doing the most significant work in the world. All the alumni ought to have the privilege of reading of their achievements.

THE INDUSTRIALIST, moreover, would like to use pictures of scenes on farms of graduates, of shops supervised by graduates, of homes built by graduates. It would like to show the alumni as the big, vital body that they

Why should not every alumnus set for himself the motto, "An item a 10 years since the foundation was esyear"? Send in just as many items as tablished, and in the statistics it has possible, but supply anyway one every kept of the charge made for tuition by It will mean a more interesting alumni department in the paper and, leges of the country, it has been found ding on Wednesday. better still, a stronger body of alumni.

Why should not every alumnus of the college keep a file of THE INDUS-TRIALIST in a conspicuous place in his home? It would arouse interest among young people and would be a sure means of attracting students to the college.

HELPING THE COLLEGE

The business meeting of the Alumni association held in commencement amples at Columbia and Yale, the fee week decided that it is worth while to at Princeton has increased from \$160 help, and believed that the absent to \$170, and the next year the Harvard members would think so too.

The association is growing in influence as well as numbers, and the opportunity for good work increases as the college grows. If the Kansas State tive or median fee of our representa-Agricultural college is to continue to grow and increase its influence for good, the alumni must help. The \$100 a year, and that the tendency to members who have been active in advance fees is increasing." alumni affairs in the years past have realized that, while the social activities are highly desirable and enjoyable, there is work for the alumni to pensions. Twenty-three retiring allowkeep the college improving.

new one. Many of the older colleges \$1,550. The total number of allowhave for many years accepted life ances now in force is 327, and the widmembership and accumulated funds ows' pensions 118; and the total exfor various purposes. It is believed penditure for allowances since the that the interest on a life membership foundation was established will meet the expense of the member amounted to \$4,225,000.

and save the trouble of an annual payment of dues.

In the discussion of the amendment for annual dues of \$1, not a member objected. All seemed to realize that ing, there will scarcely be timber an association of 3,000-3,000 college enough to build nor fence, or fuel to graduates-ought to be able to do burn, in a few years more in any part some good work as an association and that an empty treasury is not evidence of ability or enthusiasm.

A dollar a year dues from each member will make possible many activities that will mean much in the growth of the college. Any surplus in the treasury lent to some worthy student will give the association a part in that carefully. Let owners of cleared land

Men strong in the faith of the old classical colleges have said that the technical schools, the scientific schools and the agricultural colleges lack traditions, lack ideals, and will never de- for want of shade, where a few locust nor of the alumni to the point of making a sacrifice to their alma mater. Alumnus of the Kansas State Agricultural college, do you believe that? Do you believe that it takes five generations to make a gentleman? Do you believe that closer friendships and higher ideals are born in the class room where prints of the ruins of the Parthenon and the Coliseum adorn the walls than in laboratories where bottles of insects and cases of fungi that cause the world to be underfed, furnish the material for research?

If you believe in your Alma Mater, and you do, pay your dues. A dollar has a good deal of power, but you have an endowment given you by Kansas State Agricultural college that means a richer life-richer in material things, richer in influence and power, richer in ideals and you are glad to be a participant in the larger life that the college is making possible for the people of the state.

Plan for a life membership soon. Help make life a little easier for some boy or girl who is reaching for a larger life. Most of the members of the alumni come from humble homes. The college has helped you to a better home than you otherwise might have had. The alumni of the Kansas State Agricultural college are not an aristocracy. They form a great democratic body that believes in work, in study, in the ability to enjoy the good of life, and that wants to make better food, more sanitary homes, less drudgery, more happiness, better lives for everybody.

Pay your dues.

TUITION FEES RISE

The cost of education, in the matter of tuition alone, is increasing, according to the Carnegie Foundation for the Advacement of Teaching. It is just the representative universities and col that the charge has increased by about one-fifth.

"The tendency to increase was active 10 years ago," according to the report, "but it was checked by the general financial disturbances of 1907. Since that time it has developed steadily, so that the last four years represent more than half of the advance during the decade. During the present year, following the recent exfee of \$150, which has remained unchanged since 1869, will be increased

"It may be said that the representative institutions has increased, during the decade, from about \$80 to about

The report states that \$674,000 has been spent by the foundation during the year in retiring allowances and ances, and 20 widows, pensions were The life membership idea is not a granted, the average grant being

CONSUMPTION OF WOOD

There is too little attention paid in this country to the preservation of wood. At the rate we have been goof this country. A little care and very little trouble would prevent this threatened scarcity. Let owners of woodlands use only the wood that is down or the trees that are dead; or, if these are not sufficient, cut the least thrifty and where they are thickest, and always, if possible, fence around sprouts plant oaks, chestnut for fencing, walnut and other useful and fast growing trees, on every vacant spot, along roads, streams, etc. Much of our pasture land is often parched and useless velop the spirit of the student body or buttonwood or other trees would conserve the soil and furnish wood for use. A little attention from the present generation would preserve to posterity plenty of timber and fuel. - Farm Journal.

IMPLEMENT PRICES The prices of farm implements depend very largely upon the price of steel. That is very clear. Advances in prices of implements this season were expected and understood. "On account of the war" is the correct explanation in this case. Many farmers have put off buying any implements not absolutely necessary this season, hoping that another year, with the war probably ended, prices would return to normal. But as the weeks go by indications point rather the opposite way. It would seem there is likelihood of a further rise rather than a decline in prices. Manufacturers report great difficulty in getting new orders for steel accepted, and the filling of old orders is in many cases put off from month to month. War orders for steel are much more profitable than implement orders. While the war continues war orders will continue. When the war ceases foreign demand for steel is expected to continue strong and profitable. A tremendous amount of steel will be needed for rebuilding

The College and the Alumni

President Henry Jackson Waters

VERY institution of learning is measured by its graduates. If they succeed in their vocations the community sees behind them the efficiency of the institution in intellectual training. If they are advocates of the best and most progressive in civic life, the community sees behind them the ideals of justice and righteousness taught by the institution. If in these or any other matters the alumni of an institution fail, it is marked down as a failure of the institution.

The Kansas State Agricultural college is peculiarly fortunate in having a body of efficient, public spirited alumni to bear testimony for it, not only in Kansas, but throughout the United States and even in the uttermost parts of the earth. In community after community graduates of the college are setting an example of efficient service and of altruistic devotion to the best interests of state and nation. Moreover, not only by the example of their lives but by their efforts and specific actions they are performing genuine and highly important service to the college. They are doing a work that no one else can do and accomplishing results that no one else can accomplish.

The crown of highest gladness for any college is its faithful alumni, and with these no institution is more brightly crowned than the Kansas State Agricultural college.

A QUARTER CENTURY AGO

Items from The Industrialist of June 27, 1891 Horticultural hall is the first building to be covered with the new tin shingles.

The third annual report of the experiment station is expected daily from the

Mr. and Mrs. Kirshner of Kansas City aiiended the White-Fairchild wed

It is probable that a number of college people will visit the mountains of northwestern Colorado during August on a hunting and fishing trip. The personnel of the party cannot yet be announced.

Carl the 10 year-old son of Professor Walters, fell from a hay rack on Monday and broke his arm near the wrist. The break is a clean fracture and the arm bids fair to be good as ever in a few weeks.

Mr. Francis H. White and Miss Anna D. Fairchild were married on Wednesday, June 24, at 12 o'clock. The ceremony was performed by the father of the bride at the family residence in the presence of a few relatives and friends. The wedding lunch was immediately served, and at 2 o'clock the happy couple left for a month's visit to the principal places of inteerst in Colorado.

The veterinary department has under way several important inquiries into causes and treatment of contagious diseases among animals. The laboratory has been recently improved in equipment, and Doctor Mayo, with an assistant will spend a part of the summer in devising ways and means to reach the live stock interests with full investigations. Several series of experiments are now under way.

of destroyed property, and in some countries a broad demand for agricultural implements is expected. Conditions at this time indicate that those who need agricultural implements may well buy at once. It doesn't pay to go without tools needed to care for crops properly, and they may cost more in the future than now.-Farmers' Re-

RIVALS OF THE PRESS

The printed page no longer reigns alone in the art of advertising. A new educational force has arisen which by means of its graphic presentation of scenes and words is exerting much influence-unfortunately in part a detrimental influence-on young and old, and is spreading so widely that its "circulation" threatens in time to challenge the printed pages that roll from the perfecting presses in almost countless thousands. The art of the moving picture is little beyond the threshold of its development, but its influence is destined to widen and hold the attention of people in a firmer grip as it emerges from the necessity of censorship and rises to its inevitable heights of development. Its value in the advertising field is winning recognition.—Breeder's Gazette.

The women of the farms are economically important. They feed the men who till the farms; and until men can go to work without breakfast and to bed without supper, the women who feed them must be given credit for their share in the growing crops. The food they preserve is no small item in the national wealth. - Saturday Even-

SUMMER WINDS

Book News Monthly

Of all the winds of summer-time that blow,

I think the sweetest are the ones that go At early morningtide down the hill And up the vale, while yet the world is

Bending the tops of trees a bit to pass And ripple into waves across the grass.

Surely the very spirit of the year, Incarnate Summer, from the hilltop here,

Had breathed into the air a lilting That gathered sweetness as it passed

along! And out into the valley, unconfined, Swept on and on till it became a wind!

And sometimes, from a vision-haunted night I waken at the morning's faintest light,

Or murmur of that gently-moving

Stealing at dawn across the listless trees.

And wander through the forestland, until

I hear the song of Summer from the hill.

SUNFLOWERS

A summer goeth before a fall.

Capital and labor are impossible terms to many of us.

Some people enjoy the hot weather and others talk about it.

People who teach summer school and people who go to summer school will at least be acclimated.

People who were married in June don't need any advice. They have matriculated in a dearer school.

A SIMPLE SYSTEM

How to keep raspberry seeds from between your teeth:

- 1. Remove your teeth carefully.
- 2. Swallow the raspberries whole.
- 3. Wash your mouth with carbolic acid.
- 4. Replace your teeth.

A VACATION HINT

Some things you should take on your vacation:

Time. Exercise. Your wife (?)

A rest.

Fishing tackle. Golf sticks. Joss sticks.

Quinine. Baths. Nourishment.

WHAT IS THE LONGEST WORD?

What is the longest English word? Some time ago the London Academy published a list of words of Gargantuan dimensions, with their authorities and instances of actual usage. Among words which figure in the list are velocipedistrianisticalistinarianologist, ultradisestablishmentariasts, antidisestablishmentarian, ultrantidisestablishmentarianists, antitranssubstantiationistically, flocipaucinihilipilification (used by Sir Walter Scott in his journal), and honorificabilitudinitatibus (used by Shakespeare and several others.)

Certain tribles such as incircumscribtibleness do not count, and the big word of Rabelais, antipericametanarbeugedamphicribrationis is apparently ruled out, for the Academy

"The Englishman's real jaw-breaker is a Welsh word over which Mr. Justice Lawrance once, at the Anglesey Assizes, asked an explanation from Mr. Bryn Roberts, M. P. 'What is the meaning of the letters "p g" after the name Llanfair?' The answer was, 'It is an abbreviation for the village of Llanfairpwllgwyng yll gogerychwyrndrobwllandysillogogoch.' How is this pronounced? It will take some beating. This word of fifty-four letters, if repeated often enough, is said to be a cure for the toothache."-Editor and

Miss Vergie McCray, '11, is attending the summer school. She taught at Miami, Okla., the past year.

Miss Ina E. Holroyd, '97, is spending the summer term at the State Normal school at Emporia.

Mrs. Margaret (Cole) Wilson, '05, of La Crosse, with her son and daugh, ter, is visiting her mother in Manhat-

Miss Clara Morris, '12, has resigned her position with the Michigan Agricultural college and will spend next year at her home in Wichita.

Scott Farman, a former student, is visiting at his parents' home in Manhattan. He is in the lumber business in Ventura, Cal.

Charles Halbert, '16, has resigned his position with the Westinghouse company and joined Company I of the Kansas National guard as a private.

James R. Goxen, '06, has resigned his position in the State Normal school, San Marcos, Tex., and will spend a year in graduate work in the University of Wisconsin.

The Rev. A. D. Rice, '92, with his family, is visiting at the home of his F. A. Marlatt, Manhattan; W. C. sister, Miss Ada Rice, '95. He is being transferred to Wichita Falls, Tex., instead of Okemah, as formerly announced

Dr. Earl M. Dobbs, '16, has been awarded a scholarship in the veterinary school of Cornell university for next year. He will assist Doctor Kubin during the summer and go to Ithaca early in September.

Loren Fowler, '12, Paul H. King, '15, and George Dean, '16, have been recommended to the United States army as veterinarians under the new army act in effect July 1. They will have to pass an examination, however, before they can qualify and orders have not yet come for them to appear for examination.

A THOUSAND ALUMNI BACK

Two hundred alnmni and former students of the Kansas State Agricultural college registered at alumni headquarters in commencement week. Only a small proportion of those here wrote down their names, however, and not fewer than 1,000 are estimated to have been present-the largest attendance ever recorded in a Kansas State Agricultural college commencement season.

The list of graduates and others who

registered follows:

Cecil Elizabeth Miller, '16, Manhattan; 'Anna-Lora Miller, '16, Manhattan; L. G. Haynes, '09, Zeandale, Kan.; C. W. McCampbell, '06, '10, Manhattan; G. L. Campbell, '11, White City, Kan.; Mabel Ruggels, '16, Salina. Kan.; R. E. Wiseman, '13, Manhattan; Mayme H. Brock, '91, Portland, Ore.; Con M. Buck, '96, Topeka, Kan.; Mrs. Con M. Buck, '97, Topeka, Kan.; G. C. Wheeler, '95, Topeka, Kan.; H. C. Rushmore, '79. Kansas City, Mo.; W. T. Hale, '12, Topeka, Kan.; Irving C. Root, '12, Kansas City, Kan.; V. M. Emmert, '01, Mc-Pherson, Kan.; S. C. Harner, '90, Keats, Kan.; Lyle P. Price, '11, Belleville, Kan.; Emma Haines Bowen, '67, Manhattan; H. G. Roots, '11, Centralia, Kan.; Mrs. H. G. Roots, '11, Centralia, Kan.; Edward Larson, '11, Vesper, Kan.; E. H. Schroer, '11, Manhattan; Mrs. E. H. Schroer, Manhattan; Alice D. Roberts, '12, Muscatah, Kan.; May Munger O'Neal, '12, Manhattan; Hulda Bennett, '08, Manhattan; W. A. Cavenaugh, '96, Capt. U. S. Army; C. W. Lyman, '96, Topeka, Kan.; Grace Shelley, '10, Mc-Pherson, Kan.; Blanche Vanderlip, '10, Manhattan; C. F. Pfiintze, '93, Manhattan; Ruth Aiman, '15, Manhattan; Albert Deitz, '85, Kansas City, Mo.; Viva Brenner Morrison, '04, Manhattan; W. A. Sumner, '14, Madison, Wis.; Louise Dyer, '14, Riley, Kan.; Jesse J. Frey, '14, Manhattan; Grace Hill Champlin, '99, Manhattan; Blanche Burt, '14, Shallow Water, Kan.; Frieda Stuewe, '15, Alma, Kan.; H. S. Gish, '14, Manhattan; Alice M. Joshephine H. W. McCullough, '98, son, '15; Lillian Lathrop, '16; Bertha dress is 214 North Paulina street.

'05, Concordia, Kan.; Mrs. Trena (Dahl) Turner, '01, Concordia, Kan.; Hattie Forsyth Felton, '04, Dwight, Kan.; Helen Inskeep Peter, '06, Randolph, Kan.; Marcia Elizabeth Turner, '06, Port Arthur, Tex.; Edith B. (Justin) Haslam, '08, Manhattan; Thomas P. Haslam, '08, Manhattan; Isabelle Arnott Bryant, '10, Berkeley, Cal.; Arthur J. Rhodes, '05, Manhattan; Elsie Adams, '13, Manhattan; C. J. Willard, '08, Williamsburg, Va., Alice Gish, '16, Sterling, Kan.; Essie Schneider, '12, Manhattan; Winifred Dalton, '06, St. George, Kan.; Alma McRae, '06, Goodrich, Kan.; Helen Kernohan, '04, Beverly, Kan.; Venus Kimble, '08, Manhattan; Vivien U. Willard, U. of C. '08, Williamsburg, Va.; Mrs. Kate Paddock Hess, '00, Houston, Texas; H. P. Hess, '05, Houston, Texas; Clara F. Hodges, '16, Ottawa, Kan.; Helen Knostman Pratt, '01, Manhattan; S. J. Pratt, Manhattan; Charles A. Scott, '01, Manhattan; Mrs. S. R. Vincent, Sterling, Kan.; S. R. Vincent, '94, Sterling, Kan.; Mary E. (Cottrell) Payne, '91, Manhattan; George O. Greene, '00, Manhattan; H. G. Roots, '11, Centralia, Kan.; Lena Fossler, '14, Manhattan; Tina Andrews, '12, Norcatur, Kan.; Mina Erickson, '14, Cushing, Okla.; Elsie Buchheim, '15, Winkler, Kan.; F. A. Marlatt, '87, Manhattan; Mrs. Tomson, '12, Manhattan; Daisy Harner Roehm, '06, Oshkosh, Wis.; Verda Murphy Hudson, '06, Manhattan; Viola Hepler, '10, '15, Manhattan; M. Marie Coons, '09, Manhattan; Margaret Justin, '09, Manhattan; Margaret Copley Buchholt, '09, Olathe, Kan.; Marcia Edythe Tillman. '16, Manhattan; Gilbert Haven Sechrist, '16, Meriden, Kan.; Grace Woonsetler Rude, '85, Hoisington, Kan.; Cora Secrist Hungerford, '85, Manhattan; George E. Hopper, '85, Manhattan; I. N. Chapman, '16, Manhattan; Mrs. I. N. Chapman, '16, Manhattan; Dorothy Waters, Riley, Kan.; Vera McDonald Pyle, '04, Manhattan; Charles A. Pyle, '04, '07, Manhattan; R. T. Nichols, '99, Manhattan; Mrs. Alice T. Nichols, Manhattan; R. P. Schnacke, 16, Manhattan; Mrs. R. P. Schnacke, Manhattan; Ruth Schnacke, Topela, Kan.; Elva Coughlin, Great Bend, Kan.; Mrs. Olga Raemer Totten, '11, St. Joseph, Mo.; Margaret Morris, '11, Manhattan; Marie Morris, '11, Manhattan; H. L. Kent, '13, Manhattan; Mrs. Helen Huse Collins, '08, Baldwin, Kan.; Mrs. Emma Knostman Huse, '80, Manhattan; L. A. Fitz, '02, Manhattan; W. H. Sanders, '90, '16, Manhattan; R. A. Seaton, '04, Manhattan; Eliza Burkdoll, '15, Ottawa, Kan.; Clara F. Castle, '94, Manhattan; J. W. Berry, '83, Jewell, Kan.; Gorge I. Walsh, '15, Manhattan; Lois Failyer, '07, Cambridge, Mass.; H. C. Rushmore, '79, Kansas City, Mo.; Vida A. Harris, '14, Manhattan; Catherine Justin, '12, Manhattan; Phoebe Jane Lund, '16, Manhattan; F. G. Kimball, '87, Manhattan; Mrs. F. G. Kimball, Manhattan; Mrs. W. S. Amos, Topeka, Kan.; Harriet A. Parkerson, Manhattan; L. P. Parkerson, '16, Manhattan; Ethel Vanderwilt, '13, Manhattan; Minerva Blachly Dean, 00, Manhattan; T. W. Morse, '95, Olathe, Kan.; George A. Dean, '95, Manhattan; J. V. Quigley, '16, Blaine, Kan.; H. W. Avery, '91, Wakefield, Kan.; Elizabeth A. March, '16, Topeka, Kan.; Walter B. Adair, '16, Osawatomie, Kan.; Earnest A. Wright, '06, Manhattan; Jennie Edelblute Smethurst, '00, Manhattan; Anna O'Daniel Amos, '03, Manhattan; Miner M. Justin, '07, Manhattan; E. L. Shattuck, '07, Ruston, La., Orville B. Burtis, 16, Fredonia, Kan.; Marcia Pierce, '08, Junction City, Kan.; Eugenia Fairman, '10, Manhattan; E. M. Amos, '02, Manhattan; Edward Larson, '11. Vesper, Kan.; A. L. Wiltse, '10, Manhattan; C. M. Breese, '87, Manhattan; Ralph S. Hawkins, '14, Marysville, Kan.; Georgia R. Hawkins, '15, Marysville, Kan.; G. F. Wagner, '99, Manhattan; Cora Ewalt Brown, '98, Manhattan; R. H. Brown, '88, Manhattan; Ed. Shellenbaum, '97, Manhattan; Wm. P. Hayes, '13, Manhattan; W. E. Watkins, '06, Iola, Kan.;

Melton, '98, Manhattan; A. F. Turner,

VOTE OF THANKS

The board of directors wishing to express its appreciation of the good work done by the committee on commencement dinner, hereby extends a vote of thanks to Miss Frances Brown the chairman and her helpers, to Miss Treat and her assistants, to Miss Rigney and her assistants, to the young men and young women students who so ably served the dinner, and to all who in any way helped to make it a pleasant and memorable occasion.

Delavan, Kan.; W. A. McCullough: '98, Delavan, Kan.; Schuyler Nichols, '98, Herington, Kan.; J. W. McColloch, '11, Manhattan; Bertha Kimball Dickens, '90, Manhattan; Carl P. Thompson, '04, Manhattan; Mrs. Carl P. Thompson, Manhattan; Dudley Atkins, Jr., '13, Manhattan; Mrs. Dudley Atkins, '13, Manhattan; Mrs. J. T. Willard, Manhattan; Lois Witham, '16, Manhattan; W. M. Jardine, Manhattan; W. A. Cochel, Manhattan; H. E. Porter, '07, Manhattan; Mrs. H. E. Porter, '07, Manhattan; Ralph Felton, '04, Dwight, Kan.; Mrs. Ralph Felton, '04, Dwight, Kan.; C. G. Elling, '04, Parsons, Kan.; H. L. Popenoe, '09, Emporia, Kan.; H. Umberger, '05, Manhattan; Mr. and Mrs. Harbecke, '11, Salt Lake City, Utah; J. T. Willard, '83, Manhattan; C. Stewart Cole, '04, North Yakima, Wash.; W. J. Burtis, '87, Fredonia, Kan.; Mrs. W. J. Burtis, Fredonia, Kan.; Ada Rice, '95, Manhattan; J. W. A. Hartley, '92, Manhattan; Elizabeth Edwards Hartley, '92, Manhattan; Jacob Lund, '83, Manhattan; L. A. Hepworth, '97, Manhattan; Alice Melton, '98, Manhattan; Nellie Bourne Cool, '02, Manhattan; J. H. Calvin, 06, Lincoln, Nebr.; Henrietta Willard Calvin, '86, Washington, D. C.; Florence Snell, '11, Manhattan; Julie E. Cheney, '11, Manhattan; Corinne Failyer Kyle, '03, Washington, D. C.; Maud Failyer Kinzer, '03, Kansas City, Mo.; Nellie Aberle, '12, Manhattan; Mrs. Carrie Shumway Gish, '12, Manhattan; W. E. Thompson, '12, Manhattan; Tillie Wilson, Manhattan; Bertha Chandler, '12, Manhattan; R. A. Gwin, '14, Morrowville, Kan.: A. H. Gilles, '14, Kansas City, Mo. W. D. Cusic, '14, Ida Grove, Iowa; K. Knaus, '14, Benedict, Kan.; Ethel Marshall Anderson, '14, Topeka, Kan.; Carl Butler, '14, Manhattan; Hazel Shellenberger, '14, Westboro, Mo. W. A. Lathrop, '15, Manhattan; Edith Givens, '13, Manhattan; W. E. Grimes, '13, Manhattan; A. W. Avery, '91, Wakefield, Kan.; E. Bird, '14, Great Bend, Kan.; Nora Newell Hatch, '93, Manhattan; B. R. Hull, '97, Manhatan; C. M. Breese, '87, Manhattan.

ALUMNI RECEPTION

The alumni reception held in Nichols gymnasium on the evening of commencement day was an unusually pleasant affair. More than 200 alumni, members of the faculty, and friends were present and helped make this event the grand finale of the 1916 commencement. The large gymnasium, artistically decorated in class colors, with improvised colonnades extending the full length of each of the four walls, presented a most pleasing and beautiful appearance.

Many graduates were present and old acquaintances were renewed and new ones were made. Punch was served at two tables. The local alumni were the hosts.

SIXTY ALUMNI ENROLLED

More than 60 Kansas State Agricultural college graduates are enrolled in the summer school for advanced work. The list includes: W. B. Adair, '16; Katherine Adams, '14; Edith Alsop, '16; James E. Alsop, '15; A. C. Apitz, '16; Mary Arnold, '16; Mabel Broberg, '12; Ida Carlson, '13; Charles Clark, '12; William Curry, '14; Edna Danner, '15; Mina Erickson, '14; Fern Faubion, '16; Lura Gilmore, '13; Edna Gulick, '15; Vida Harris, '14; James L. Jacob-

Lauger, '16; J. R. Little, '15; Nelle Longenecker, '15; J. R. McClung, '11; H. M. McClelland, '16; Vergie McCray, '11; E. R. McGalliard, '16; C. A. McIntosh, '14; Fred Milner, '15; Grace Morris, '09; Elizabeth Morwick, '09; Katherine Munger, '15; Hazel Myers, '12; Winifred Neusbaum, '14; Sara Patten, '15; Gladys Payne, '13; L. T. Perrill, '12; Evelyn Potter, '15; J. V. Quigley, '16; G. H. Railsback, '14; Jessie Reynolds, '06; J. L. Robinson, '14, Madge Rowing, '13; Margaret Schultz, '13: Vesta Smith, '13; Rena Strand, '16: Belle Taylor, '14; Bertha Trusdell, '13; Katherine Tucker, '12; Mary Lee Turner, '12; P. C. Vilander, '11; Jennie Williams. '10; J. W. Zahnley, '09.

MARRIAGES .

FAUL-ZIMMERMAN

Miss Hazel M. Faul of Silver Lake and Mr. Henry Zimmerman, '12, of Barberton were married June 14 in Topeka. They spent commencement day at the college.

THORNBURG-MARBLE

Miss Mabelle Thornburg and Mr. Archie Lee Marble, '15, were married Thursday, June 22, at the home of the bride's parents, Mr. and Mrs. Harley Thornburg, in Formosa.

SHANNON-WHEELER

Miss Olive M. Shannon and Mr. Andrew J. Wheeler, '11, were married June 6 at Yates Center. Mr. and Mrs. Wheeler are both teachers in the Nashville Agricultural and Normal Insti-

PERRILL-ADAMS

Miss Josephine Price Perrill, '15, and Mr. Jesse B. Adams, '14, were married at the home of the bride's parents, Mr. and Mrs. J. P. Perrill, in Tar Kiln, Ark. Mr. and Mrs. Adams are at home in Mound City, Kan.

Miss Ruth Hill, '15, and Dr. L. E. Hobbs, '15, were married at the home of the bride's parents in Wichita Saturday, June 17. They will be at home at 913 Osage street, Manhattan, after July 1. Doctor Hobbs is superintendent of the Fielding serum plant near Manhattan.

MISS DODD IN FRANCE

Miss Marguerite Dodd, '14, of Manhattan, is engaged in relief work in France. She and her aunt, Mrs. Frank A. Durban of Zanesville, Ohio, reached Bordeaux April 19 and proceeded to Paris. Miss Dodd goes to the American Ambulance hospital each day. There are 1,500 wounded men there all the time. As it is only 60 miles from the Verdun battle line, the discharged and the dead do not begin to leave vacancies enough for the daily number brought from Verdun. The hotels are all partly closed, now that there are no tourists, and many and makes us all realize that we owe are entirely closed and have been the college our support. turned into hospitals. At the big hotel where Miss Dodd and Mrs. Durban stop, only the annex is used and the dining room is what once was a spacious bedroom.

Besides her hospital work, Miss Dodd is taking lessons each day at ten at the Berlitz School of Languages.

CHILDREN OF ALUMNI IN 1916

The class of 1916 contains six children of alumni of the college. Miss Wilma Burtis and O. B. Burtis are daughter and son of W. J. Burtis, '87. Miss Vivian Neiswender and R. R. Neiswender are children of L. H. Neiswender, '84. The father of Miss Phoebe J. Lund is Jacob Lund, '83. Ralph P. Van Zile is a son of Gilbert J. Van Zile, '90, who died in 1899, and Mrs. Mary Pierce Van Zile, who was formerly a student in the college.

Elizabeth J. Agnew, '00, teacher in domestic science in the Fort Hays Kansas Normal school, writes as follows: "I am heartily in favor of the loan fund, and am glad to take out a life membership for so worthy a cause. Money payable on demand. I expect to spend commencement at the college, hence will expect to see you and I trust a large number of other alumni."

L. O. Tippin, '10, is with the Chicago Telephone company. His ad-

MESSAGE FROM PRESIDENT

The alumni of the Kansas State Agricultural college form an army of trained men and women numbering more than 3,000. These members are employed in all fields of human endeavor and are scattered over nearly all states of the Union and in nearly all climes under the sun.

An association thrives best when it has a definite work to accomplish. Many public spirited members have labored untiringly to enlist a powerful influence of the membership in the interest of the college. Some suscess has attended their efforts but more cooperation is needed.

As our college grows its responsibilities increase. We should make its responsibilities ours. Our work is to organize our membership by counties or by cities, as convenience may dictate. These local organizations should be coordinated with the general organization as our constitution pro-

Our most recent effort is to establish a loan fund to aid deserving students who might otherwise not be able to complete their courses. Students of today do not have the time to spare from college duties as many did 30 years ago. A loan at the right time will put many deserving students through. For \$20 an alumnus can secure a life membership in our association and know that this money, becoming a part of the student loan fund, will serve a good purpose.

There are people in Kansas who know little of the college. There are many who have wrong impressions of the college. There are many who desire information relative to the college. A well organized membership in each county of the state can do much to make our college more useful to the people of the state.

WALTER J. BURTIS, '87.

AICHER COMMENDS LOAN FUND

L. C. Aicher, '10, writes from Aberdeen, Id.: "This new Alumni association life membership loan fund arrangement is certainly a happy solution of the annual inconvenience of paying dues. The usefulness of the college will be greatly enlarged thereby, and the alumni will be brought in closer touch with the things the college is now doing, and what it can and will be able to do in the future.

"The move to get the alumni back to college at frequent intervals should receive every encouragement. My getting back to college every other year since graduation has been a great help to me in my work, and in keeping in touch with the great strides the college is making. The alumnus must get back to appreciate it. This getting back 'puts the pep' into the alumni

"Mrs. Aicher and I are sorry that we will not be able to be there for commencement. Our checks for life membership in the Alumni association are here inclosed."

Dear Mr. President:

In reply to your circular letter of May 12 to the alumni of the Kansas State Agricultural college, I take pleasure in inclosing herewith my check for \$20 and beg that you will enroll me among the life members of the association.

In doing this I find the greater pleasure in the fact that money secured in this way is to be applied to so useful a purpose as the creation of a loan fund for the use of deserving students, and I applaud heartily the generous action of President Waters in the donation he has made to this fund as set forth by Mr. H. C. Rushmore in his accompanying letter.

With cordial personal regards and the best of good wishes for the success of this alumni enterprise, pray believe Sincerely,

ERNEST FOX NICHOLS, '88. Dartmouth College, Hanover, N. H.

Miss Elizabeth Dempewolf, '15, will continue to teach domestic science at Lordsburg, N. M., next year, at a substantial increase in salary.

IT IS IMPORTANT QUALIFICATION FOR EDITOR, SAYS WATERS

Association of Agricultural College Editors Holds Conference Under Auspices Journalism and Printing Departments-Many Strong Addresses

Common sense is the most important qualification for an editor, according to Dr. H. J. Waters, president of the Kansas State Agricultural college, who addressed the American Association of Agricultural College Editors here. For college editors Doctor Waters advocated training in agriculture and journalism, with newspaper and farm experience, as the ideal qualifications.

Farm bulletins, President Waters pointed out, should be based on the same principles as effective advertising-a knowledge of the commodity offered and the market for it.

URGES TEACHING OF JOURNALISM

Charles Dillon of Topeka, managing editor of the Capper farm papers, urged the teaching of journalism in the agricultural colleges, pointing out its value in training men for positions on farm journals, and in enabling the colleges to give efficient press service to the newspapers and other publications.

W. T. Beck of Holton told the editors of the importance of agricultural material to the country newspaper, and gave suggestions as to copy to meet the editor's needs.

MCCLINTOCK HEADS ASSOCIATION

W. C. McClintock, director of publications in the Ohio State university, was elected president of the association for the coming year. The other officers are: vice-president, N. A. Crawford, professor of industrial journalism in the Kansas State Agricultural college; secretary-treasurer, Dr. B. E. Powell, director of information Ida. office, University of Illinois; additional members of the executive committee, H. B. Potter, editor for the University of Tennessee, and W. C. Palmer, editor for the North Dakota State college.

Addresses, in addition to those mentioned above, were made by M. G. Osborn, Louisana State university; Frank Dean, University of Nebraska; C. A. Whittle, Georgia State college; F. W. Beckman, Iowa State college; E. B. Reid, United States department of agriculture; Dr. B. E. Powell, University of Illinois; W. C. Palmer, North Dakota State college; W. A. Sumner, University of Wisconsin; W. M. Jardine, dean of agriculture in the Kansas State Agricultural college; H. W. Davis, associate professor of English; George S. Strother of the department of printing; N. A. Crawford, professor of journalism.

ATTRACTIVE EXHIBITS SHOWN

About 15 state institutions were represented in the meeting of the association, and exhibits of bulletins and press material were made by a much greater number.

Several of the editors expressed the opinion that this convention-the first west of the Mississippi river-was the most successful the organization has

The following resolutions were adopted:

Whereas Prof. N. A. Crawford and Dean W. M. Jardine af the Kansas State Agricultural college have contributed so largely to the success of the meetings of this association and to the entertainment of its members; and President H. J. Waters, Prof. H. W. Davis, and Mr. George S. Strother of the same institution have addressed the meetings so profitably;

Whereas Mr. Charles Dillon of the Capper farm papers and Mr. W. T. Beck of the Holton (Kan.) Recorder have taken time to attend and address this meeting:

Whereas the Commercial club of Manhattan has entertained the members of this association so royally;

Be it resolved that the association hereby extend to these individuals and the organization mentioned its most sincere thanks.

SENSE HAS MOST VALUE FRESH AIR KEEPS CHICKENS FROM TAKING COLD-HARRIS

Mødern Poultry House Will Help Keep Fowls In Good Health

Pure, fresh air is a prentive of colds among fowls, according to N. L. Harris, superintendent of the poultry farm at the Kansas State Agricultural col-

"In supplying fresh air do not have drafts in the poultry house," comments Mr. Harris. "To avoid drafts have three sides of the house air tight and have a part of the south side open. The fresh air poultry house has been in use for a number of years and gives splendid results.

"In an old style house, the air is not pure and the chickens are continually breathing the impure air. As a result they contract colds."

FUND IS ABOVE \$2,500

(Concluded from Page One)

York City; Miss Cora Thackery, Valentine, Nebr. 1899-Mrs. Carrie Painter Des-

marias, Lakeland; Mrs. Grace Hill Champlin, Manhattan.

1900-Mrs. Daisy Hoffman Johntz, Abilene; O. E. Oman, Ogden, Utah; Miss Elizabeth Agnew, Hays; George O. Greene, Manhattan.

1901-Charles A. Scott, Manhattan. 1902-L. A. Fitz, Manhattan; P. H. Ross, Leavenworth.

1903-H. N. Vinall, Washington, D. C.; L. S. Edwards, Oswego; George T. Fielding, Manhattan; Miss Clara Pancake, Cedar Falls, Ia.

1904-Victor Cory, Lubbock, Tex.; Miss Alice Loomis, Lincoln, Nebr.; Nicholas Schmitz, College Park, Md.; Mrs. Mary Davis Ahearn, Manhattan. 1905-William J. Wilkinson, Oakland, Cal.; Mrs. May Harris Burt, Denver, Col.; A. F. Turner, Formoso; Mrs. Edith Davis Aicher, Aberdeen,

1906-Miss Jessie Reynolds, Manhattan, R. R. Birch, Ithica, N. Y.; W. E. Watkins, Iowa.

1907-W. B. Gernert, Urbana, Ill. 1908-Miss Ruby Buckman, Lexington, Ky.; Miss Helen Halm, Manhat-

1909-Miss Frances L. Brown, Mancattan.

1910-Miss Leila Dunton, Manhat tan: L. C. Aicher, Aberdeen, Ida.

1911-N. S. Robb, Eugene, Ore. Cliff Stratton, Kansas City, Kan. Miss Dora M. Otto, Riley.

1912-Miss Nellie Aberle, Manhat-

1913-Miss Stella Mather, Manhattan; O. I. Oshel, West Lafayette, Ind.; Miss Vesta Smith, Norton; M. F. Whittaker, Orangburg, S. C.; H. L. Kent, Manhattan.

1914-W. A. Sumner, Madison, Wis. 1915_Carl Butler, Manhattan.

1816-Miss Emma Taylor, Wichita; Miss Louise Greenman, Kansas City. Contributors who are not alumni Governor Arthur Capper of Topeka, L. R. Eakin, of Manhattan, Mrs. H. C. Rushmore, of Kansas City, Miss Marilla Rushmore, of Kansas City, Mrs. M. P. Van Zile, Mrs. B. W. Birdsall, the Rev. Walter Burr, and N. A. Crawford, of the college.

ABILITY TO EXPRESS ONE'S IDEAS IS VALUABLE ASSET

College Graduate Should Be Able to Speak Convincingly

That every student in college_technical or nontechnical-should know how to express his ideas to others in groups or individually, in a sensible, compact, clear, and convincing manner, is the opinion of Dr. J. G. Emerthe Kansas State Agricultural college.

"In technical schools, the graduate is expected to communicate his ideas through action," says Doctor Emerson. "His value to society is not measured by what he says but by what who will probably debate next year he does-by the sort of workmanship are: J. B. Sweet, Floyd Hawkins, Miss that he puts into a concrete bridge for Madge Thompson, Miss Stella Gould, example, or a dairy plant. But the Miss Mary Dakin, Miss Rose Baker, spoken words still remain one of the chief means of communicating intelligence. The college graduate is expected by the outside world to have the ability to think clearly and to express his thoughts in a convincing manner." | weather last year?

CLOTH TO TRAP BEETLE

SIMPLE METHOD WILL RID HOUSE OF DESTRUCTIVE INSECT

Fumigation With Carbon Bisulphide Monthly Will be of Value in Infested Trunks, Chests, and Closets-Keep Woolen Garments on Hooks

Trap the carpet beetle with a woolen cloth. Put it in a dark corner of the closet and the beetles as well as the larvæ will be attracted by it, asserts George A. Dean, professor of entomology in the Kansas State Agricultural college. At least once every month shake this cloth over a paper and burn it in the stove.

"Iron the beetles out of heavy carpets," says Professor Dean. "They are fond of living in carpets under heavy pieces of furniture. Remove the furniture, put a damp cloth over the infested area, and press it with a hot iron.

FORMALDEHYDE IS USELESS

"Carpet beetles are of two kinds, the black and the speckled. The latter is commonly and inappropriately called the buffalo moth. The adult black beetle, the more common of the two, in a small, oval black insect, from two to three-sixteenths of an inch in length. The speckled beetle is oval in shape and at least one-eighth inch long, mottled with bars of white scales on a black background.

"Fumigation with formaldehyde does no more good than fresh air for killing carpet beetles. Infested trunks, chests and closets should be fumigated with carbon bisulphide at least once a month. Use one ounce for every 20 cubic feet of space. Put the liquid into a dish, set it in the infested place, and close it. Do not forget that carbon bisulphide is highly inflamable and explosive."

MOST ACTIVE IN SUMMER

The pests breed during the entire year in warm houses but are more active in the summer. This means that they must be fought in winter as well as in summer.

All woolen clothing should be hung on hooks, because the insect seldom attacks goods free from the floor. Furs and valuable coats should be carefully beaten and sunned, then placed in long paper or sound cotton cotton sacks securely tied shut. Hang the sacks free from the floor in a light closet or attic. Lint, woolen goods, and feathers should not be allowed to collect in corners, especially dark

TWENTY-SIX ARE CHOSEN TO DEBATE IN COMING SEASON

Strong Competition for Places by Young Men and Women

Fourteen men and 12 girls were se lected for the debate squads for the collegiate year 1916-1917, during the debate tryouts recently held. Nearly

50 persons tried out for places. Following are the names of the persons who made places: A. W. Boyer, Merle Converse, L. A. Dubbs, W. W. Fetrow, G. C. Gibbons, W. A. Gillespie, L. Hamil, L. R. Hiatt, R. E. Mc-Garrough, H. A. Moore, T. R. Pharr, O. Steanson, Miss Lois Bellomy, Miss Hazel Crabb, Miss Hazel Merillat, Miss Laura Mueller, Miss Fern Roderick, Miss Jewell Sappenfield, Miss Donna Faye Wilson, Miss Louise Ziller. The alternates are Miss Vilona Cutler, Miss Marie Johnson, Miss Anna Neer, Miss Erba Kaull, R. L. Foster, C. W. Howard.

Much interest was shown in the try outs and the debate coaches are pleased with the results. Dr. J. R. Macarthur, Don L. Burk, and Dr. J. G. Emerson son, in charge of public speaking in judged the tryouts. The debates for the coming year will be under the supervision of these men.

Double "K" men and women are not required to try out. Those who have double "K's" in debate at present and and Miss Mae Sweet.

What has become of the wise old gentleman who predicted a hot, dry

JOURNALISM SORORITY NOW REPRESENTED IN COLLEGE

Miss Vina Lindsay Instals Mu Chapter of Theta Sigma Phi

Theta Sigma Phi, national journalism sorority, is the latest addition to the organizations in the Kansas State Agricultural college. Miss Vina Lindsay of the Kansas City Post, who is a graduate of the University of Missouri, installed the chapter.

The active members of the sorority are Miss Edith Updegraff, Miss Eva Hostetler, Miss Erba Kaull, Mrs. George S. Strother, Miss Nelle Flinn, Miss Dora Otto, Miss Hazel Beck, and Miss Annette Perry. Mrs. Max Wolf of Manhattan and Miss Mary Williams of Topeka were initiated as alumnæ members of the organization.

TO DEVELOP SYMPATHY BETWEEN FARM AND CITY

Dr. C. A. Prosser Urges Proper Teaching of Children in Urban and Rural Schools

Teach the city child his dependence on the country, the farm child his dependence on the city. This is the only way to develop sympathy between rural and city people, according to an address at the Kansas State Agricultural college by Dr. C. A. Prosser, director of the William Hood Dunwoody institute, Minneapolis, Minn.

Enough knowledge is available in agricultural colleges to keep instructors in the public schools busy teaching for the next 25 years, declares

Doctor Prosser.

"The problem of the schools" said the speaker, "is to get this information in comprehensive terms, so that it will be of use to the man or boy in the home. Greater difficulties are found in teaching agriculture in secondary schools than in the colleges, because the college students have wider experience before beginning their vocational training.

"The rural schools offer the biggest problem for the teaching of agriculture, because they are hampered in so many ways. Rural communities lack tax resources. The short length of terms and the lack of facilities are great drawbacks. The tendency on the part of instructors to imitate the city schools makes the difficulties of country child are different from those needed by the city child."

SEVERAL NEW INSTRUCTORS ANNOUNCED BY PRESIDENT

Dr. A. F. Peine Will Be Assistant Professor of History-Other Appointments

Several new instructors in the Kansas State Agricultural college have just been appointed, according to announcement made by President H. J.

University of Illinois, and the Univer- days. sity of Chicago, will be assistant professor of history. C. D. Christoph, a graduate of the University of Michigan and a former instructor in the Philippine islands, will be instructor in English. W. A. Buck, who last week received his master's degree from the college, becomes assistant in steam and gas engineering, succeeding John C. Shutt, who has accepted a position in commercial work. Fred H. Bundy, of Manhattan will be assistant in blacksmithing in succession to E. W. Henry, who has entered commercial work in Cincinnati. F. E. Fox of the Iowa State college, has been appointed assistant in poultry husbandry and L. S. Hobbs of the Texas Agricultural and Mechanical college fellow in engi-

Dr. R. T. Nichols, college physician, has resigned to enter private practice.

The production of butter in 1914 in the United States amounted to 786,-013,489 pounds, valued at \$223,179,254, as compared with 627,145,865 pounds, valued at \$180,174,790, in 1909, representing an increase of 25.3 per cent in quantity and 23.9 per cent in value. These figures are from the report of season because of the cold, damp the 1914 cencus of manufactures, recently issued.

GET AFTER THE HOPPER

INSECT THREATENS CROPS IN SEV-ERAL PARTS OF KANSAS

Poisoned Bran Mash, Used Successfully for Three Years, Will Put Quietus on Activities of Pest-Sow it in Morning

Grasshoppers threaten some of the crops, especially alfalfa, in several districts of the state unless prompt and vigorous efforts are made to check them, according to George A. Dean, entomologist in the Kansas State Agricultural college.

While there will be no general grasshopper damage in Kansas this year there are several local infestations in different parts of the state where grasshoppers are in sufficient numbers to do serious damage to some of the crops.

THEY MIGRATE AFTER HARVEST

According to Mr. Dean, the time to get the grasshoppers is just after wheat harvest, when they are migrating from the wheat stubble to the growing crops, or just after the second cutting of alfalfa. During the last three years the poisoned bran mash, flavored with fruit juice, has been found so effective in this state and in other states and countries that the experiment station does not hesitate to recommend it as the most effective and practical method of control.

The bran mash is made of bran, 20 pounds; Paris green, white arsenic, or London purple, 1 pound; sirup 2 quarts; oranges or lemons 3; water 31 gallons. Paris green is preferred to the other poisons but the price of it this year is very high, and hence in some cases it may be well to substitute white arsenic or London purple.

HOW TO MIX MASH

In preparing the bran mash, mix the bran and the poison dry in a wash tub. Squeeze the juice of the oranges or lemons into the water, and chop the remaining pulp and the peel to fine bits and add them to the water. Dissolve the sirup in the water and wet the bran and poison with the mixture, stirring it at the same time in order to dampen the mash thoroughly.

The damp mash or bait should be sown broadcast in the infested areas agricultural training in the rural early in the morning, when the grassschools even greater. The lessons in hoppers first begin to move about. agriculture that are essential for the The amount of bait or mash made by using the quantities of ingredients given should be sufficient to cover four to five acres.

On alfalfa fields the bait should be applied after the crop has been removed and before the new crop has started. If grasshoppers are moving into corn, kafir, new wheat, or garden, a strip of the poisoned bran mash should be scattered early in the morning along the edge of the field, A second or even a third application of Dr. A. F. Peine, who holds degrees the bait will be necessary in some from Illinois Wesleyan university, the cases at intervals of three or four

HOME ECONOMICS AND WRITERS' GROUPS AHEAD

Omicron Nu, Quill Club, and Sigma Delta Chi at Top in Scholarship

Omicron Nu, honorary home economics sorority; the Quill club, an organization of writers; and Sigma Delta Chi, journalism fraternity, head the college organizations in scholarships, according to the official report just given out. The standings of these three are Omicron Nu, 89.19: the Quill club, 87.42; Sigma Delta Chi, 87.39. A total of 38 organizations are grouped according to scholarship.

COLLEGE IS FOR THIRD TIME DISTINGUISHED INSTITUTION

Obtains High Rank from War Department for Efficient Military Training

For the third successive time, the Kansas State Agricultural college has been ranked as a distinguished institution in military instruction. The rating is from the war department and can be given to not more than one institution in five.

This enables the college to recommend graduates of the institution for appointment to second lieutenancies in the regular army.